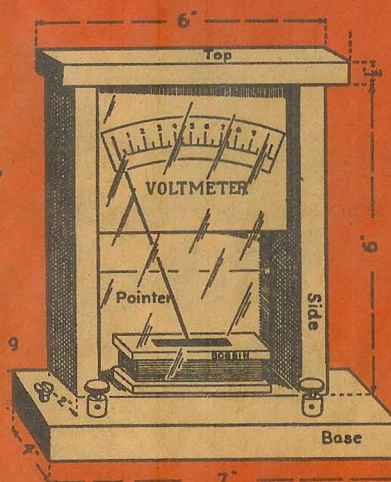
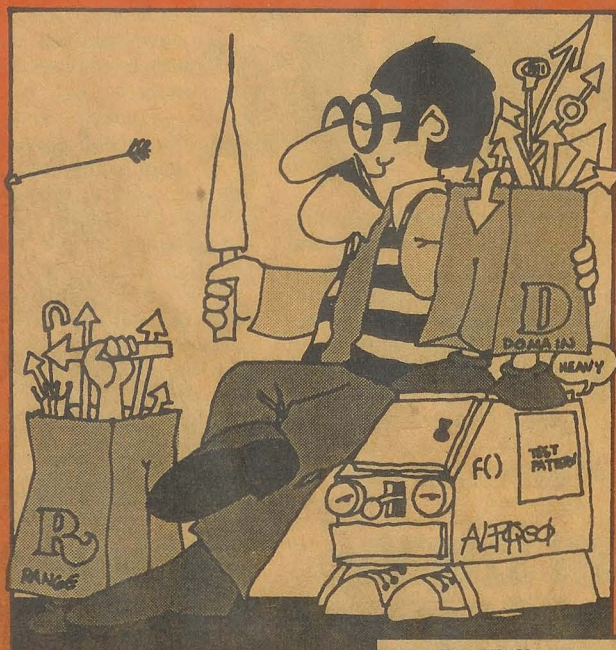


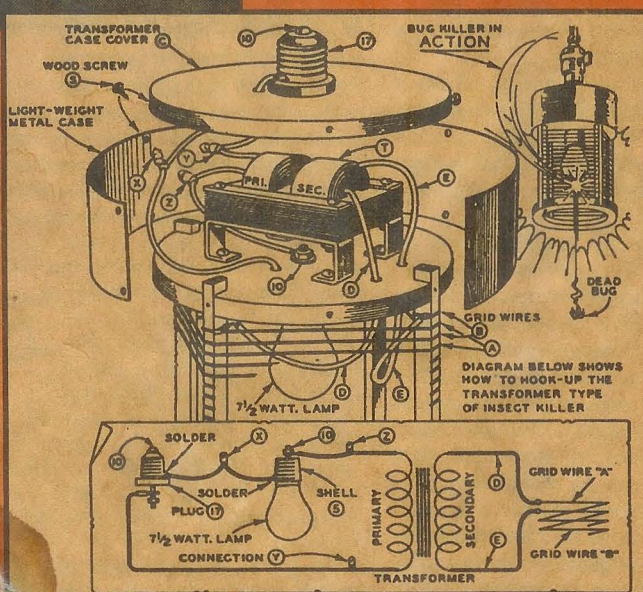
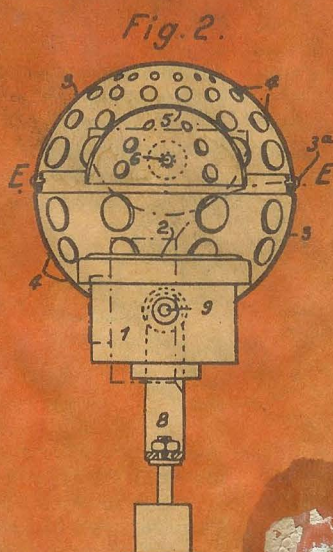
SECRETS!

(...secrets you aren't supposed to know!)

Unusual technical books, past and present, of exceptionally high quality revealing skills and secret processes almost forgotten.

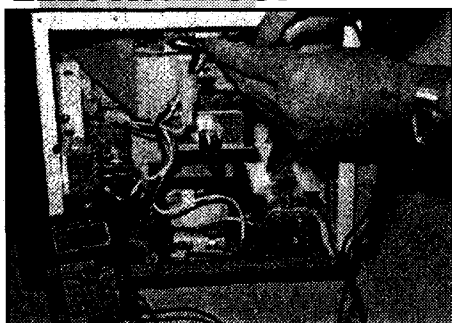
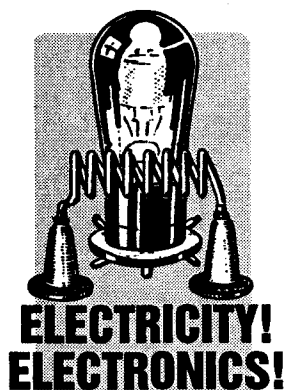


(above) *Calculus Primer* pg 18 (above)
The Boy Electrician pg 3 (below) *LeJay*
Manual pg 5 (below left) *Lakhovsky*
Multiple Wave Oscillator Handbook pg 49



LINDSAY PUBLICATIONS INC

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Repair Your Microwave

MICROWAVE OVEN REPAIR

by Homer L Davison

"This book puts at your fingertips all the hands-on troubleshooting and repair procedures you need to know to solve virtually any microwave oven problem. Updated and revised to cover the latest models and features, this third edition will help you stay abreast of recent innovations and improvements in microwave oven technology.

Step-by-step instructions and hundreds of detailed working illustrations and photographs demonstrate how to install a new fan motor, fix a defective switch, replace a magnetron, perform leakage tests, and much more.

Inside you'll find: complete details on General Electric's tilt-down-oven-door microwave, Samsung's latest ovens, and microwave convection ovens. Practical information on today's microwave circuitry, including dozens of new circuit diagrams. The latest news on test equipment and procedures used by major appliance manufacturers. Specific solutions to more than 200 common microwave oven malfunctions."

Nexttime you try to microwave a 'possum you scraped off the road and it explodes in the microwave gumming up the whole works, you won't have to suffer the embarrassment of taking it to a repairman to have it fixed. You can do it yourself. Detailed book. I like it. 7 1/2 x 9 softcover 455 pages

No. 3030

\$24.95

Armature Winding & Motor Repair

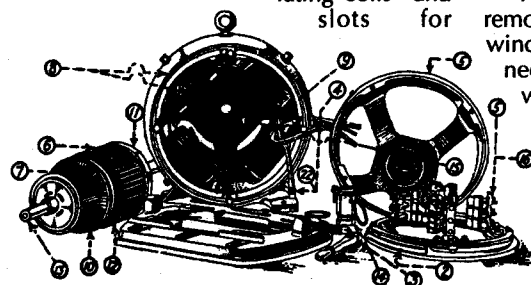
ARMATURE WINDING & MOTOR REPAIR

by Daniel H. Braymer

reprinted by Lindsay Publications

From 1920 comes this motor rewinding book loaded with drawings and photographs that will show you how to rebuild both AC and DC machines.

Chapters include: DC machines, AC machines, shop methods of rewinding DC armatures, making commutator connections, testing DC armature windings, operations before and after winding DC armatures, insulating coils and slots for



winding, shop methods for rewinding AC machines, testing induction motor windings for mistakes and faults, adapting DC motors to changed operating conditions, practical ways for reconnecting induction motors, commutator repairs, adjusting brushes and correcting brush troubles, inspection and repair of motor starters and generators, diagnosis of troubles, methods to solve special troubles, tables and more.

You'll find a chapter that shows you how

to build special tools and jigs, an armature sling, a pinion puller, coil winding machine, a coil taping machine, commutator slotter, armature banding machine and more.

The motors described are large types used in factories. But the principles apply to the smaller motors you and I use. You'll learn how to reconnect induction motors for different voltages and phases, how to operate a DC motor as a generator and vice-versa, change the DC motor windings for different voltages, and more.

You'll be taught all the techniques — from removing old windings and cleaning slots, to winding the coils, insulating the end connections, inserting the coils, painting the windings, relining split bearings, and much more. You get data on all types of wave and lap windings, varnishing and insulating materials, and much more.

I make you no promises, but this is the logical place to start should you want to rewind a motor to particular voltage, wind a generator or alternator for use with a windmill or waterwheel, rewind a big generator for use as a welder, modify a DC motor for use in an electric car, and so on.

This is a beautiful book. You get over 500 pages of clearly written, wall-to-wall practical how-to with excellent illustrations. It's a gem that should be in the reference library of most "machine freaks" (that includes you, son). Get a copy 5 1/2 x 8 1/2 softcover 540 pages

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Run Three-Phase Motors!

RUN THREE PHASE MOTORS ON SINGLE PHASE POWER!

Yes! You can run three-phase motors on single-phase power using any one of three excellent methods in use since the turn of the century. First, lathes, drill presses, and other machine tool motors can be run with the capacitor method. Second, the autoformer method (a technique you should buy rather than build) is useful for motors running under continuous full load. And finally you can run a whole shop full of three-phase motors from a single, easy-to-build dynamic converter! No rewinding is necessary. These methods are good to at least 150 hp and 220 volts! Low starting currents and excellent power factor are possible.

Basic three-phase and induction motor theory is included. This booklet and some experimentation can have you rewinding. 5 1/2 x 8 1/2 booklet 15 pages with illustrations — a BARGAIN!

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Alternators!

ALTERNATOR SECRETS

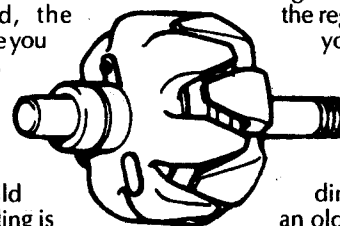
If you know the secrets of modification, you can get large amounts of power from a common auto alternator. You can build a portable powerplant driven by a gasoline engine to run brush-type power tools, lights, and AC-DC appliances at remote locations. You can hot-charge storage batteries, or even do light arc welding. Operation of the regulator is explained so that you can build a custom regulator, if needed, to provide regulated output voltages other than 12.

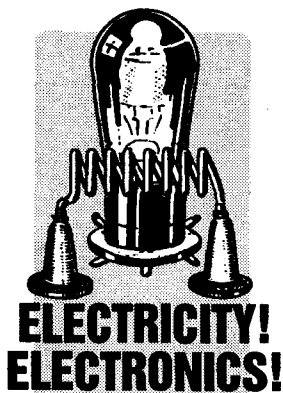
Learn how you can make almost any ordinary induction motor (like an old washing machine motor) put out 120 volts at 60 cycles without rewinding or internal rewiring. These secrets are worth the price of the booklet alone.

We've jammed a ton of information into 16 pages with small type to keep printing costs down so that we can keep the retail price the same as the old edition. Valuable, rare info! Get a copy. 5 1/2 x 8 1/2 booklet 16 pages

No. 80

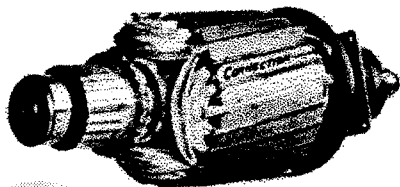
\$3.00





AUTOPOWER Automobile Generator Conversions & Modifications by S. W. Duncan reprinted by Lindsay Publications

From out of the Great Depression comes this unusual book on ways to make auto generators produce unusual amounts of power. The major problem with this book is that the generators shown being rewound are not easy to find. But the principles taught here can with imagination be applied to modern generators, DC motors, starter motors and more. You get detailed, practical how-to that can be adapted to modern needs.



Generator Modifications!

Chapters include changing a Ford Model A generator to a 110 volt alternator, get constant voltage at variable speed, converting a Dodge 12 volt generator into a 110 volt 500 watt alternator, changing a Model-T to 110 volt AC, making field and armature coils, changing a Delco generator to 110 Volt AC, the winding of automobile armatures, characteristics of DC generators, suggestions on mechanical construction of generators, figuring a new winding for an old frame, converting a farm light plant to 110 volt AC, and more.

We reproduced this from a stained, greasy, and obviously used copy of the original 1935 edition, and although the reproduction is not perfect, it is surprisingly good.

Get a copy of this. This is one of those manuals that people talk about having seen years ago, but can no longer find. Unusual info. Order a copy today.
5 1/2 x 8 1/2 softcover 56 pages
No. 4791

\$4.95

The Boy Electrician

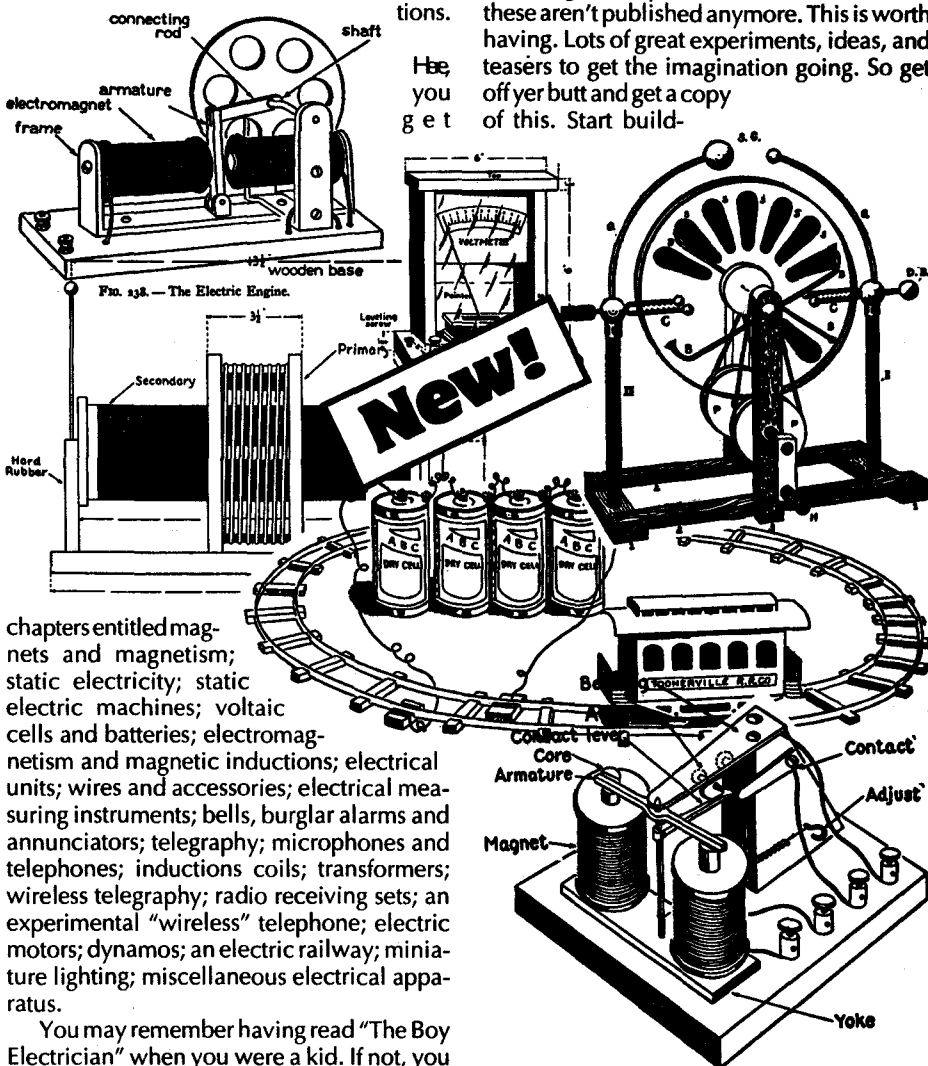
THE BOY ELECTRICIAN
by Alfred P. Morgan
reprinted by Lindsay Publications

If there could be only one book chosen as the boy's book of electricity, it would have to be this one. The first edition appeared in 1913 and there were many to follow. This is the 1940 edition, and I know there were later editions.

Classic Available Again!

The whole book is heavily illustrated and a joy to read. Remember. This is written for boys. You're not going to get detailed design theory. Morgan keeps the discussion light and fun. But these are great projects.

You get a boy's classic book. Books like these aren't published anymore. This is worth having. Lots of great experiments, ideas, and teasers to get the imagination going. So get off yer butt and get a copy of this. Start build-



chapters entitled magnets and magnetism; static electricity; static electric machines; voltaic cells and batteries; electromagnetism and magnetic inductions; electrical units; wires and accessories; electrical measuring instruments; bells, burglar alarms and annunciators; telegraphy; microphones and telephones; inductions coils; transformers; wireless telegraphy; radio receiving sets; an experimental "wireless" telephone; electric motors; dynamos; an electric railway; miniature lighting; miscellaneous electrical apparatus.

You may remember having read "The Boy Electrician" when you were a kid. If not, you missed something. You get practical how-to plans and advice to build and have fun with all kinds of electrical equipment. You might start with a cork and needle compass, but before long you'll be building a Wimshurst machine, powerful batteries from scratch, galvanometers, voltmeters, ammeters, telegraph keys and sounders, a telephone, a high voltage induction coil, a step-down transformer, wireless telegraphy with a crystal set receiver, vacuum tube receivers including a regenerative, motors and generators, an electric train, a device to convert heat directly into electricity and even a Tesla coil!

ing. Even if you sit on the couch, suck a barrel of beer and eat a cubic yard of potato chips like I do anymore, you can still enjoy this. It's fun to read. Get a copy. 5 1/2 x 8 1/2 softcover 403 pages

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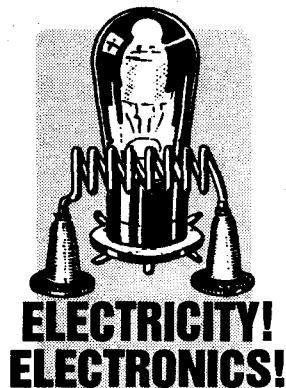
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BOY ELECTRICIAN Hardcover Edition

I had just a few copies casebound (cloth). They will probably disappear before the softcover. If you want one, order quickly. While they last...

No. 21656

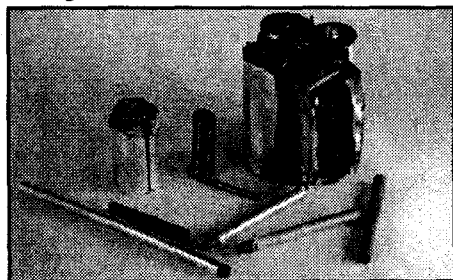
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HOW TO SALVAGE CARBON RODS FROM BATTERIES FOR CARBON ARCS

by Don Meador

Stuck in the middle of a dead flashlight battery is a carbon rod. Pull it out, and put it to use. When two carbon rods which are connected to a source of electricity come together, they arc and slowly burn. They give off enormous heat, blinding visible and ultraviolet light, and produce some really nasty toxic gases like ozone.



Salvage Carbon Rods from dead batteries...

Carbon arcs are being phased out of print shops where they have been used for years to provide the intense UV light needed to make offset plates. Carbon arc torches are very simple to build and can produce enormous heat. Carbon arcs can melt steel, yes, steel.

Meador has already written a booklet for building a carbon arc torch. Carbon rods are becoming hard to find. Here the author will show you how to extract carbon rods from used batteries, remove the chemicals, and insert it into a thin-wall brass tube to improve its operation.

The salvaged carbon rods are actually more graphite than pure carbon, so they have other applications as well. Meador is a graduate electrical engineer with a intense interest in metal working. It's quite possible in the future we'll see plans for carbon arc lights and a steel-melting furnace.

You must understand this is not a project you can take lightly. You're dealing with chemicals to salvage rods that can be quite dangerous if improperly used. But this is old technology used for decades. You can use it, too, if you are careful. Interesting. 5 1/2 x 8 1/2 booklet 19 pages

No. 3029

\$4.50

Build a Carbon Arc Torch!

HOW TO BUILD A CARBON ARC TORCH

by Don A. Meador

Pump a large electrical current between a slightly separated pair of carbon electrodes and you come up a 9000° F flame useful for melting metal, welding and brazing. Here Meador will show you how to build a carbon arc torch using wood, tubing and commonly available carbon electrodes. You really don't need much money or expertise to build an excellent working torch.

hole attaches the clamp ring to the threaded rod, and the other one holds a thumb screw. The clamp leaf floats freely inside the clamp ring. The thumb screw will tighten onto the clamp leaf forcing it against one side of the carbon rod. This causes the carbon rod to be pinched between the clamp leaf and the clamp ring holding the carbon rod securely in place and making a good electrical connection.

The clamp ring is made first. Cut two pieces of 3/4" square steel tubing 1/2 inch long and clean off the burrs with a file. Drill two 13/64 inch holes into the center of two adjacent sides of each clamp ring as shown in figure 10, and tap these holes for 1/4" - 20 threads. This completes the clamp ring fabrication.

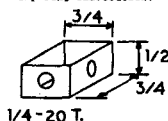


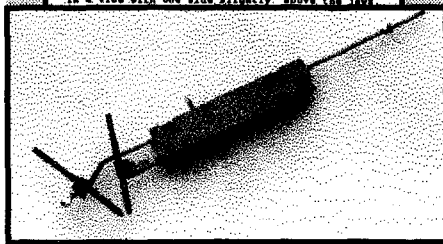
Figure 10

The two clamp leaves are a little more complicated to make. Figure 11 shows how the clamp leaves look after they have been cut out.



Figure 11

Both clamp leaves are made from one section of 3/4 inch square tubing. Start by cutting off a 3/4 inch long section of tubing. Put the piece in a vise with one side slightly above the jaws.



You do need a source of high-amperage current such as an arc welder, but perhaps you could jury-rig another source such as a bank of auto batteries. (This could be dangerous, so be careful. You're on your own.) The maximum recommended amperage for a 3/16" electrode is 30 amps which is not much. On the other hand, 1/2" electrodes need up to 140 amps. But, then, what are you planning to do anyway? Braze two battleships together?

So build a torch. Use it to light up your movie lot, fry fish, or cauterize herpes lesions (although I don't think I want to be around to smell that!). You might even try using the torch to heat metal! Order a copy. 5 1/2 x 8 1/2 booklet 30 pages

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\$6.95

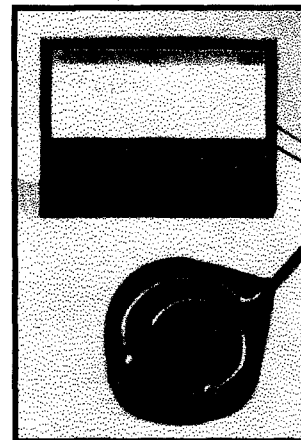
HOW TO BUILD A SOLAR CELL THAT REALLY WORKS

by Walt Noon

Yes! You CAN build a solar cell that converts sunshine into electricity. And it's really quite easy.

Modern high efficiency solar cells based on silicon crystals are difficult and dangerous to manufacture. You would need exceptionally expensive equipment just to perform the most basic experiments. But fortunately there is another method.

Walt Noon will show you how to quickly and inexpensively build a copper oxide photo cell. Admittedly, its overall efficiency doesn't come close to modern silicon cells, but neither does the cost. You can crank out cells for pennies. Connect many cells in parallel and series, and you can generate surprising amounts of power.



The process requires only simple tools. The chemicals, like all chemicals, can be dangerous if mis-handled, but the worst is probably nitric acid which is used to thoroughly clean the copper.

tronic acid which is used to thoroughly clean the copper.

Build a SOLAR CELL that really works!

He'll show you to make a working cell, test it, troubleshoot it if necessary, and even give you ideas on an experimental painted cell that he's working on. In addition, he'll give you schematics of test circuits, sample applications, and interesting projects that he's tried. You'll also get names and addresses of suppliers.

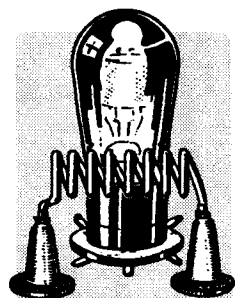
That author is not a professional, but he has safely built and used these solar cells, and he's willing to show you how its done. You get a 24 page booklet with many drawings, schematics and photographs that describes the relatively simple process in detail.

Build solar cells! Perhaps you can make some improvement in the process that will improve efficiency. Build electronic equipment. Charge batteries. Build a great science fair project. No matter what your objective, you'll find this to be a fascinating project worth trying. Rare information! Order a copy of this inexpensive booklet today.

5 1/2 x 8 1/2 booklet 22 pages

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**ELECTRICITY!
ELECTRONICS!**

Fifty-Five Wild Projects!

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GOLDMINE!**

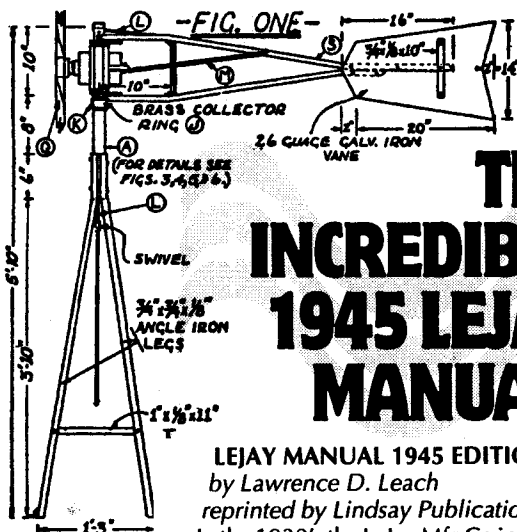
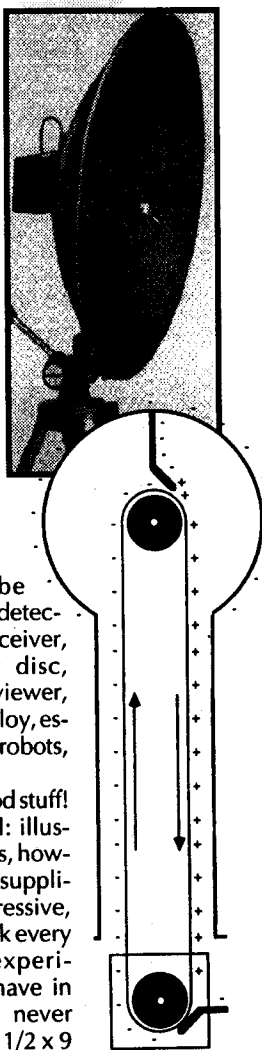
by Gordon
McComb

Here, in a
single book, are
55 off-the-wall
devices you can
build.

You get a
Jacob's ladder,
plasma sphere
generator, induc-
tion coil, Van de
Graaff generator,
Tesla coil, Kirlian
camera, piezo
film speaker and
amp, He-Ne las-
er pistol, vari-
able-rate strobe
light, radiation de-
tector, universal receiver,
superconductor disc,
see-in-the-dark viewer,
shape-memory alloy, es-
pionage devices, robots,
and more!

And this is good stuff!
— plenty of detail: illus-
trations, diagrams, how-
to text. The list of suppli-
ers is quite impressive,
too. This is a book every
unorthodox experi-
menter should have in
his library and never
loan. Get one! 7 1/2 x 9
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THE INCREDIBLE 1945 LEJAY MANUAL!

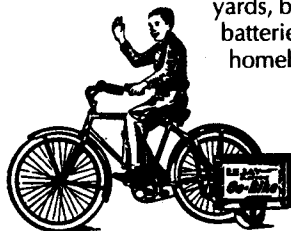
LEJAY MANUAL 1945 EDITION

by Lawrence D. Leach

reprinted by Lindsay Publications

In the 1930's the LeJay Mfg Co in Minnea-
polis began publishing a booklet describing unusual electri-
cal projects. As new editions came out, new plans were
added until by 1945 there were 50 separate "chapters".

Most of the articles in this edition deal with the conversion
with now-antique auto generators into 110 volt alternators,
other voltage generators and motors. A lot of this info was
used in areas of the country that hadn't been electrified. You
could buy old generators from auto junk
yards, build a windmill, repair old auto
batteries, and use the electricity to run
homebuilt motors, welders and so on.



Most of the information in this
booklet is now of limited
value simply because you
can't get the generators
listed. But the rewinding
data, hints and tips provided
can help you in other re-

winding projects for other types of generators.

There ARE several projects in this booklet each of which
is worth the entire price of the publication. For instance, you
can build a small but useful spot welder powered by nothing
more than a string of auto batteries. You get plans for an arc
welder, a transformer spot welder, a carbon-arc torch, elec-
tric bicycle, a water wheel, a windmill and more. Each plan
is well illustrated.

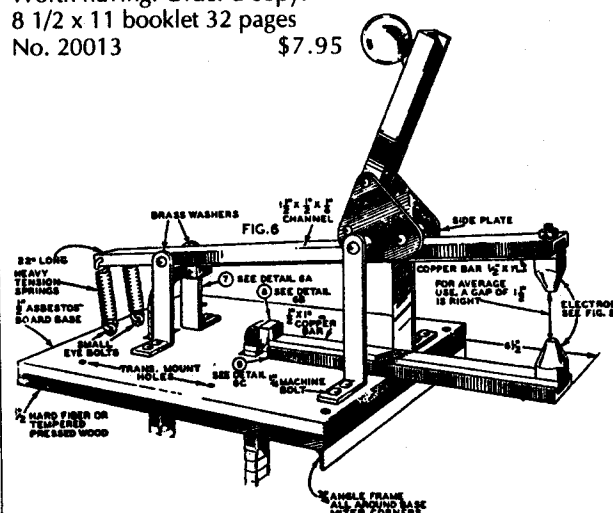
This is a manual worth having in your reference library.
Great ideas. Great value. Fun to read. Useful projects.

Worth having. Order a copy!

8 1/2 x 11 booklet 32 pages

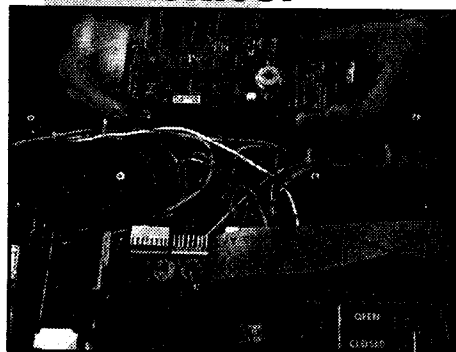
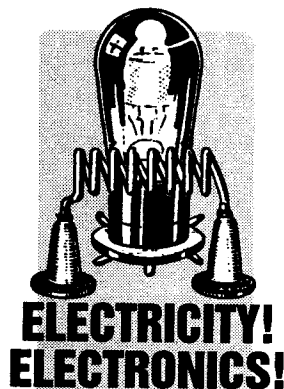
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Just a few of the 50 UNUSUAL ELECTRICAL Projects & Plans

- 1 Plans for 110 Volt AC Light Plant made from Ford Model "T" Generator
 - 3 A 6 Volt Slow Speed Generator (with plans for all-metal windmill)
 - 4 6 Volt & 12 Volt Slow Speed Generators from Dodge "C" or "GA" Northeast Generator also from other Generators
 - 5 A 32 volt slow speed wind light Plant Generator
 - 7 How to Make a Grinder, Series Motor, Constant Speed Motor, A Universal AC or DC Motor and a Soldering Iron
 - 8 A 75 to 110 Ampere Arc Welder Made from Dodge "C" or "GA" Generator. Also Dual Welders.
 - 9 Pendulum Type Fence Controller made from Ford "T" Coil
 - 10 Plans for Building a Complete Wind Light Plant Including Tower, Propeller and Generator Charger
 - 11 A 110 Volt AC Light Plant Generator
 - 12 A "B" Eliminator For Your Battery Operated Radio
 - 13 An Automobile Generator Booster Control
 - 18 Directions for Repairing Your Own Batteries
 - 19 A Water Wheel Made from Old Automobile Wheel
 - 20 An Electric Outboard Motor from Old Ford "T" Generator
 - 21 A Gas Engine or Motor Driven Generator with Drawings in Detail
 - 22 An Armature Growler for Testing Auto or Slow Speed Armatures
 - 29 A 110 V. or 220 VAC Portable Transformer for Arc Welding
 - 30 A 110 Volt Spot Welder — 1 Kw. Input Normal Draw 10 to 11 Amps
 - 31 A Direct Drive 32 Volt Wind Plant — All Metal Construction
 - 32 A Battery Spot Welder
 - 43 Two Types 110 Volt AC Insect Exterminators
 - 44 An Electric Scooter Using a 6 or 12 volt Battery for Power
 - 45 An Electric "Go Bike" Using a 6 or 12 volt Battery for Power
 - 46 A Carbon Electrode Holder for Soldering, Brazing and Light Welding Direct from Six-volt Storage Batteries
 - 48 110 Volt AC 500 Watt Self Excited Generator from Dodge Model "C" or "GA" generator
 - 50 An AC Welding Transformer Using Dodge Generator Coils
- Appendix: Windpower Information, Definitions, etc



Repair PC-Based Computers!

SERVICING PC-BASED EQUIPMENT

by Don Doerr

Service PC computers.

You get detailed flow charts to locate a problem. You can do your own repairs are a fraction of the cost of having it done. And if you DO choose to have someone else do the repair, you'll be able to ask intelligent questions. You'll be able to protect and recover your data. And much more.

If you take your PC to a dealer with a bad floppy drive, chances are they will replace it with a new one. Yet the author will tell you "floppy drive alignment is one of the easiest and most profitable areas of repair on PCs. Anyone who tells you that floppy drives are not worth repairing is either ignorant of how easily they can be repaired or is trying to ensure job security..." In other words, you can fix your own. Maybe you can make money doing it for others.

You get charts, diagrams, explanations of how components work, what the terms mean, pin configurations for common CPU chips, buses, ROM BIOS, error codes, and much more.

This is not for raw beginners, but you don't need to be an expert either. This can move you beyond the beginner stage. Used PC's are cheap. Buy one and refurbish it. Maybe you can get started in repair. For me, the cost of the book is nickel-and-dime compared to the thousands I've got tied up in hardware that fills your order. Consider it carefully. 7x9 softcover 354 pages

No. 3005

\$26.95

Contents (just a few of the topics)

How to Make an Electric Fireless Cooker, An Alarm That Rings by Sound, Make Your Own Electric Toaster, An Electric Stop for the Phonograph, Make the Alarm Clock Turn on the Light, Lighting the Gas Stove with an Electric Spark, A Simple Socket for Small Electric Battery Lamps, The Pocket Flashlight May Become a Spot-Light, Immortalizing Baby's First Shoes, Home-Made Electrical Device Keeps Cigars Moist, Locating a Projecting Nail in a Shoe by Flashlight, Taking Care of the Storage Battery, Making a Wet Battery from Ordinary Dry Cells, Did You Forget to Put Out the Cellar Light?, A Suggestion for Lighting a Club-House, How to Use an Old Nitrogen-Filled Lamp, A Milk-Can Vacuum Cleaner, A Small Motor Used to Open Large Doors, An Indirect-Lighting System for Your Own Home, A "Loaded" Door-Bell Button, How to Reduce Polarization in Sal Ammoniac Door-Bell Cells, Repairing the Wires on an Electric Iron, A Reliable Solution for the Electro-Deposition of Aluminum, A Reel for Winding Up an Electric Test Cord, An Electrical Spot-Light for the Sewing Machine, The Underwriter's Knot for Flexible Cords, A Fire-Alarm to Be Attached to an Oil Heater, An Alarm to Announce the Charged Storage-Battery, An Inexpensive Electric Coffee-Pot, Why That Sewing Machine Motor Slips, How to Make a Miniature Electric Reading Lamp, Taking Flashlights by Electricity, How to Make a Two-Step Night-Light Transformer, Make Your Own Christmas Tree, The Burglar Makes a False Step, Increasing the Voltage of a Dry-Battery, To Prevent the Ears from Perspiring When Using Telephones, The Sleeper Must Get Up to Stop the Alarm, An Electro-Thermostatic Control for House-Heating Boilers, An Electrically-Heated Inhaler for Respiratory Troubles, The Ordinary Buzzer Used for a Shocking Machine, Why Stay Awake to Call the Nurse, A Toy Electric Signal for Miniature Trains, How Short Circuits Occur on an Automobile, Why Use a Step-Ladder to Change Light Bulbs, How to Make All the Clocks Strike at Once, Drying Shoes with Heat from an Electric Globe, Twisted Picture-Cord Used for a Fan Motor Brush, The Electric Lamp As a Cooking Device, New Applications of Electricity, An Electrically Driven Gyroscope and How It Acts, Strong Wireless Signals in Winter Time, Electricity Direct from Coal, How Electric Signals Direct a Big Show, Connecting a Spotlight, in an Automobile Dynamo Circuit, Moving X-Ray Pictures, Describing the Electric Circuit by Comparing It to Hydraulic Circuit, An Effective Method for Recharging Dry Cells, A Silver-Plating Bath and How to Use It, How Electrolysis Destroys Water-Mains, The Effect of Electricity and Music on the Human Organism, Photographing Music on a Film, X-Raying the Oyster for Pearls, Testing Tips for the Electrician, A Soldering Iron Heater, A Speed Indicator Will Count the Turns for Your Coil, Paper Strips on Armature Amplify a Buzzer Tone, How to Test the Strength and Stability of Magnets, Charging Storage Cells from Service Mains, Railroad the Telephone in a Crowded Office, An Elaborate Electrical Plug-In Clock, Poor Contact Will Impair Battery Efficiency, Improved Electrode for a Water Rheostat, An Emergency Repair for Commutators, Testing the Polarity and Compounding of Motors, A Magnetic "Fishing" Tool for Locating Blind Wiring, A Coating to Make a Battery-Box Acid Proof, An Arm-Band to Hold a Lineman's Tools, How to Tie the Invisible Armature Knot, Tinfoil Used As a Substitute Fuse, Utilizing a Second-Hand Magneto, A Shunting-Out Switch for an Ammeter, Electric Lights to Call Employees, Thermostat Made from a Brass and an Iron Strip, A Lamp Guard to Keep Large Electric Bulbs from Falling, Making an Electrical Socket from Wood and Strips of Brass, A Simple Base for a Small Battery Lamp, Soldering Large Vertical Cables by the Pouring Method, Why Distilled Water is Used for Batteries, Cutting or Breaking Glass with Electricity, Home-Made Rheostat for Service Lines or Batteries, A Magnetic Lifter for Engine Valves, Three Worn-Out Dry Cells Make One Good One, A Good Permanent Base for Small Battery Switches, Light the Inside of Your Touring Car, Positive or Negative Which is Which, Turn on the Light with the Power, A Low-Tension Magneto Becomes a Dynamo, Correcting Engine Starter Trouble, An Electric Light for the Lawn-Mower, Removing Sediment from Storage Battery Cells, Making Silver Contact Points for a Spark Coil, An Inexpensive Method of Charging Storage Batteries, A New Device for Testing Electric-Light Bulbs, A Winding Machine with a Revolution Counter, The Normal Running Temperature of Electric Machines, Automatic Telephone System Invented by Undertaker, One Bell with Two Push-Buttons, Making Tape from Cotton Cloth for Electrical Work, How to Use a Hairpin As a Switch Fuse, and much, much more!

MAKE THINGS ELECTRICAL!

Jam-Packed Electrical Projects and Ideas! Fun Reading!

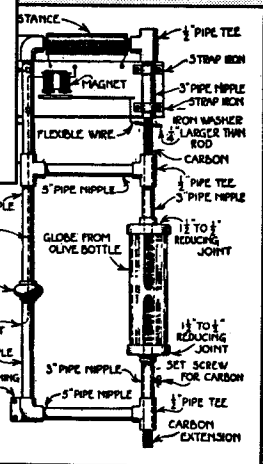
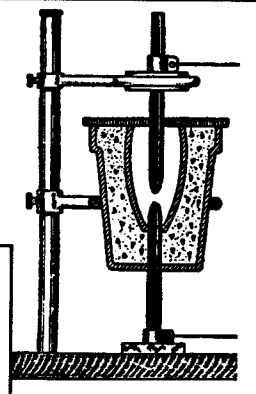
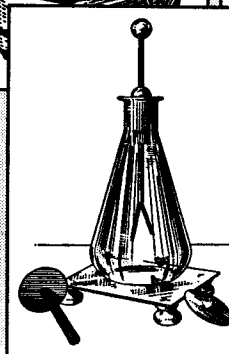
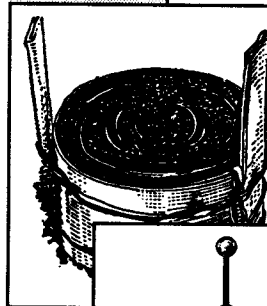
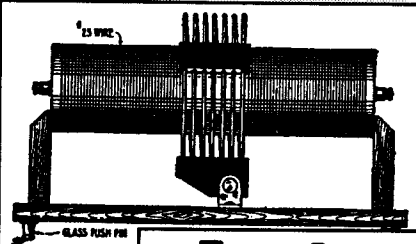
HOW TO MAKE THINGS ELECTRICAL

compilation by UPS Book Co

reprinted by Lindsay Publications

Here you get a collection of short, nifty electrical collection articles that first appeared in the pages of *Popular Science Magazine* just after World War I. Each is illustrated, and regardless of whether or not you build anything, you'll enjoy what you get here. This is a sort of electrical equivalent of the *Boy Mechanic* books.

Some of this not worth doing. Do you really want to build a toaster? But the Tesla coil that gives a 12" spark is very interest-

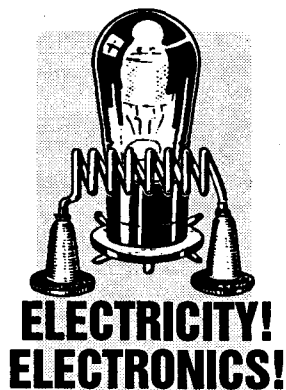


ing (you may have seen it reprinted in other books). You might want to try making the electric cannon, the magnetograph, and electro-scope, and more. If you're careful, you might want to try to make a selenium photo cell. You get numerous articles relating to motors, testing them and repairing them. You can make a water rheostat, a storage battery, arc furnace, simple arc lamp (I can smell the ozone, now), and much more.

Great ideas. Lots of fun. Something for everyone. Get a copy. 5 1/2 x 8 1/2 softcover 427 pages

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PRIMARY BATTERIES

by Henry S. Carhart

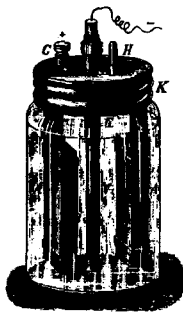
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Here's a great little book that covers the characteristics, construction, performance, maintenance, and measurements of primary batteries — devices that turn chemicals into electricity. What you get is what I call "practical theory" — knowledge that will help you understand turn-of-the-century batteries that few people have ever seen and get the most from them. You don't construction how-to.

Chemicals Into Electricity! Primary Batteries

Chapters include introduction, simple voltaic cell, potential and electromotive force, closed circuit batteries, open circuit batteries, batteries without a depolarizer, standards of electromotive force, miscellaneous batteries, battery tests, grouping of cells, and thermal relations.

The chapters are actually broken into 118 sections such as experiments on the polarization of a simple cell, defects of the Daniell cell, the bichromate battery, the copper-oxide battery, the closed Leclanche cell, the Smee cell, the Law battery, the Gassner dry battery, Lord Rayleigh's form of the Clark element, Minchin's seleno-aluminum cell, Jablochhoff's battery, test of a silver chloride cell, grouping dissimilar cells, application of the Bunsen cell, and much more.

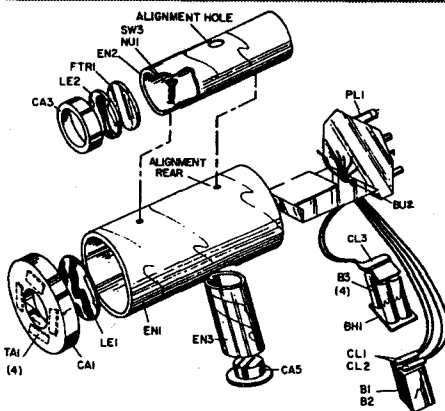


This hard-to-find information is essential for understanding how unusual, early batteries, now long forgotten, work.

Great reference! Great illustrations! Impress your friends when you fire up your homemade regenerative receiver on a homemade battery! They'll think you're Tesla himself! Worth having. Order a copy! 5x7 softcover 208 pages

No. 20536

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Lasers! Phasers! Ion Ray Guns!

BUILD YOUR OWN LASER,
PHASER, ION RAY GUN. . .

by Robert E. Lannini

Here's one of the most bizarre collections of how-to plans I have ever seen. You'll learn how to build high-power pulsed red ruby laser gun, high-power continuous IR CO2 Laser, ultrasonic field generator, programmable high-power ultrasonic generator, 250,000 volt Tesla coil, magnetic field distortion detector, solid-state Tesla coil, a variety of wireless "bugs", a super-sensitive parabolic microphone, electronic paralyzing device, battery charger and eliminator and much more.

Lannini is an experienced electronics inventor, and holds many patents. He'll give you parts lists, wiring diagrams, assembly diagrams and all you need to get these projects built. I don't think that it's any coincidence that almost every plan has a footnote telling you that kits are available from Information Unlimited, Inc., which is owned by the author and which advertises in the back of the science and mechanics magazines. No doubt, that firm's best selling plans have been reprinted in this single volume.

This book is expensive, but it delivers. I really like this, and I'm sure you will too. Order a copy, even if it has to sit for two years on the shelf before you get ready to build. Excellent book. 8 x 9 1/2 softcover 390 pages.

No. 346

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UNUSUAL PROJECTS

- beginner's simulated laser •visible red laser
- pulsed laser rifle •ruby laser gun •CO2 laser
- laser light detector •plain field generator
- phaser shock-wave pistol •ultrasonic generator
- ultrasonic listening device •250 kv Tesla Coil
- ion ray gun •magnetic field distortion detector
- light-beam communicator •solid-state Tesla coil
- infrared viewer •FM voice transmitter
- long-range telephone xmtr •parabolic microphone
- paralyzing device •wireless repeater xmtr
- much, much more!

Neon Signs

Great How-To on Glass Blowing, Vacuum Systems, High Voltage and more from 1935!



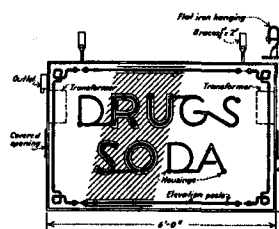
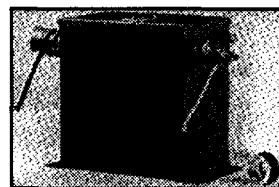
NEON SIGNS

by Miller & Fink

reprinted by Lindsay Publications

Sure. Equipment, techniques, and sign design have changed since this book first appeared in 1935, but not all that much.

Even if you're not interested in making neon signs, you'll find loads of useful information on rare gases, glass blowing, and vacuum systems that could be useful in experimental physics, high voltage, or even in building your own experimental vacuum tubes!

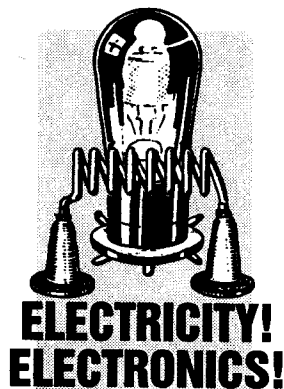


Chapters include the luminous tube, materials, electrical equipment, types of signs, designing the sign, glass bending, pumping systems, bombarding, filling, testing, aging, installation equipment, special applications, tricks of the trade and more!

This is a quality straight-to-the-point book loaded with diagrams and photographs that you won't find just anywhere. It might be fun to make bizarre neon signs, repair "antique" signs, or just get into the trade. But even if that's not your goal, you'll find loads of unusual, interesting information. Consider this carefully. It certainly is NOT run of the mill. Order a copy. 5 1/2 x 8 1/2 softcover 288 pages

No. 20340

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VIDEO SCRAMBLING & DESCRAMBLING FOR SATELLITE & CABLE TV

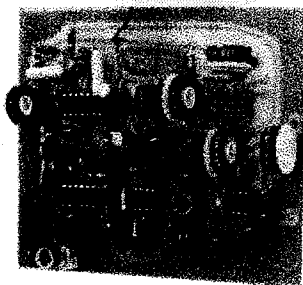
by Graf & Sheets

If you have purchased or plan to purchase a satellite dish to capture signals coming from the many Earth-orbiting satellites, this book is for you.

You get:

- An understanding of encoding/decoding systems
- The theory and techniques of video encryption and decryption
- An overview of the rules and regulations governing the availability and use of satellite signals, antennas, and programming materials
- Schematics and details for several encoder and decoder projects.

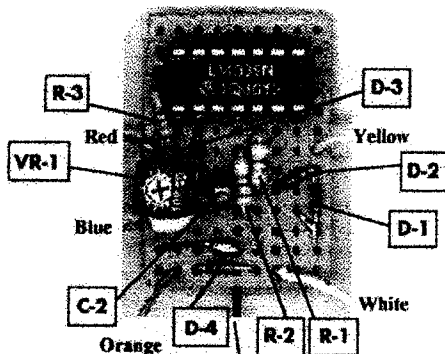
How to Unscramble Video!



Originally published in 1987, this book provides detailed information on everything from simple cable encryption systems to commercial satellite systems such as VideoCipher II™, the B-Mac System, and even the Data Encryption standard.

Although the authors are quick to point out that the information is not to be misused in theft of signal, they have provided a wealth of schematics, printed circuit board layouts, IC chip specs, patent reprints, list of satellites and the scrambling systems they use and much more. This is a quality master reference that any video/satellite fanatic will find useful. Order a copy today! 8 1/2 x 11 softcover 246 pages
No. 370

\$24.95



Scanner Mods!

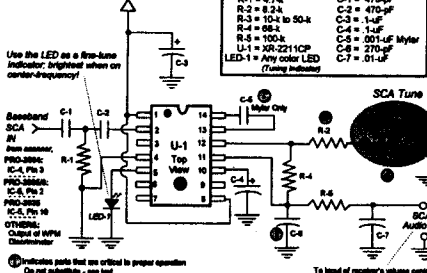
Get maximum performance!

THE ULTIMATE SCANNER

by Bill Cheek

What is the ultimate scanner? Ain't no such animal. But Cheek will teach you how to take a commercially available scanner and make all kinds of modifications that will enhance it's usefulness. You can come close to ultimate.

SCHEMATIC DIAGRAM
SCA ADAPTER



Chapters include communicating is a hobby, what is an Ultimate Scanner?, general modification hints and tips, memory mods, subsidiary carrier authorization, data tone squelch, cellular mods, computer interfaces, fund stuff, epilogue, glossary, and resources.

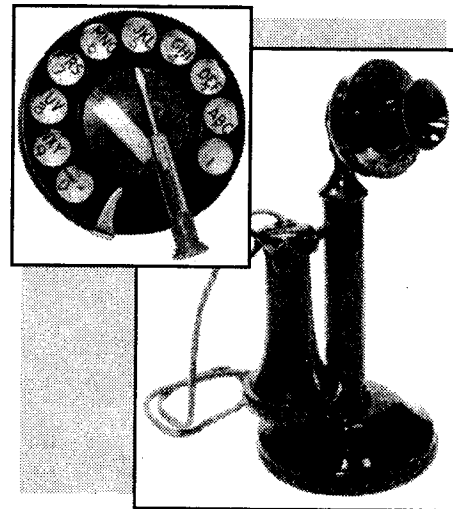
This is wall-to-wall how-to to help you connect a scanner to your computer, add memory for scan channels, and, yes, even remove the lockouts that prevent scanners from receiving cellular phones (listening to such calls is illegal). You get nuts and bolts instructions like where to clip a diode, where to add components, how to change other parts. Most of the models mentioned are PRO models and a few BC models. He doesn't mess with early scanners since they're so badly out of date.

If scanning unusual radio channels is something you love to do, or is something you want to get into, this book is a place to start, especially if you have even a little experience with electronics. This book can dramatically increase the capabilities of your store bought scanner. Expensive but worth every penny for the guy who can use it.

8 1/2 x 11 softcover 242 pages

No. 3026

\$29.95



Fix da Phone!

OLD-TIME TELEPHONES!

Technology Restoration and Repair

by Ralph O. Meyer

Got an old crank wall phone? An "Elliot Ness" candle-stick phone? A Western Electric 500 series phone? I've had these and others for many years, but have never really looked into their internals. This book impressed me not only with photos and history on old phones, but with the history of their circuitry as well. I'll have to dig the old phones out and get them working!

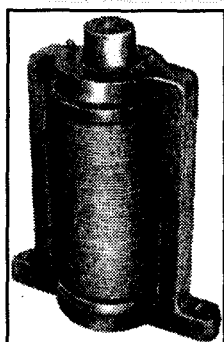
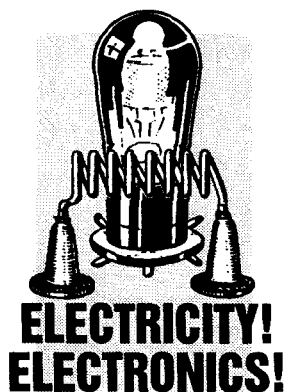
"Beginning with Alexander Graham Bell's earliest patents, Old-Time Telephones! covers virtually all of the telephone types right up to today's TouchTone™ models. Material culled from the author's meticulous research of patents, journal articles, and other sources, is divided into four sections: component development, telephone instruments, electrical circuits, and restoration and repair..."

A highly informative section covering mechanical and electrical repairs, testing, modifications to put antique phones in use today, and FCC regulations on the restoration of antique instruments."

Very informative info on such things as anti-sidetone circuits, the WE varistor equalizer networks, and much more. You get more theory and history than restoration how-to. A far better book than I had expected it to be. Interesting. 7 1/2 x 9 softcover 290 pages
No. 3032

\$19.95





SOLENOIDS, ELECTROMAGNETS AND ELECTRO- MAGNETIC WIND- INGS

by Charles R.
Underhill

reprinted by Lindsay Publications

Creating an electromagnet is quite easy as Faraday discovered, and as you and I know. But creating an electromagnet that generates a field of needed intensity, drawing minimal amperage at available voltage without overheating is not so easy. Few people know how it's done. Here you'll learn the secrets of creating working electromagnets.

Chapters include: magnetism and permanent magnets, electric circuits, electromagnetic calculations, the solenoid, practical solenoids, iron-clad solenoid, plunger electromagnets, electromagnets with external armatures, electromagnetic phenomena, alternating currents, AC electromagnets, quick-

MAGNETISM!

MAGNETISM
An Introductory Survey
by E. W. Lee

Learn about lines of force; ferromagnetism; paramagnetism and diamagnetism; quantitative measurement of magnetic force; domains and domain boundaries; high-permeability alloys, their theoretical basis and uses; magnetic matrices used as computer-age storage devices; ferromagnetism and antiferromagnetism; and much more.

You get 60 diagrams and sketches and more than 32 pages of photographs. This is one heck of a lot of book for the money. And it's must reading for basement engineers, experimenters, even the guy who's trying to build a magnetic motor or perpetual motion machine. Great background information. Order a copy. 5 1/2 x 8 1/2 softcover 281 pages
No. 365

\$6.95

SECRETS OF Electromagnets!

acting electromagnets and methods of reducing sparking, materials and bobbins, insulation of coils, magnet wire, insulated wire, windings, forms of windings, heating of windings, and tables and charts. There are also 233 illustrations listed showing everything from a practical multiple-coil winding to rim solenoids telescoped to form disk solenoids.

Some things have changed since 1921 such as better insulation and higher-permeability iron, but amps are still and amps and Oerstedes are still Oerstedes.

Build that perpetual motion machine that some people claim is possible. Or how about a flying saucer? Or how about just getting a copy for your reference library? When the need arises, you'll have rare information immediately available. Excellent book. Get one! 4 1/2 x 8 paperback 342 pages
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\$15.95

PERMANENT MAGNET DESIGN

by Lester Moskowitz

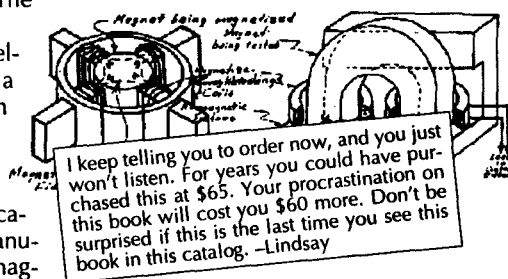
Back in print! For now at least... The best magnet book I've seen.

Opening this book gives you the feeling you've opened the lab notebook of a famous magnet scientist. It's loaded with drawings, diagrams, equations, notes, hints, tips, circuit diagrams and more.

Chapters include brief history of magnets, terms and definitions, classification of magnets and materials, basic manufacturing processes, fundamentals of magnetism, general design considerations, leakage and fringing, circuit effects, exact design methods, and on and on.

You get all kinds of information and making, testing and using magnets from a circuit diagram for a 100 joule impulse magnetizer to suggestions for use in magnetic drives, motors and magnetos, magnetic welding benches and much more.

Permanent Magnets!



Expensive! But the best book of its type I've ever seen. Just the right mix of theory and practical application. Rare information. If you think you'll ever need it, get it now. It went out of print once, and is being reprinted by another small publisher. I'm glad to see it's back. 9x12 hardcover 443 pages heavily illustrated
No. 1149

\$125.00

Build a MAGNETIZER!

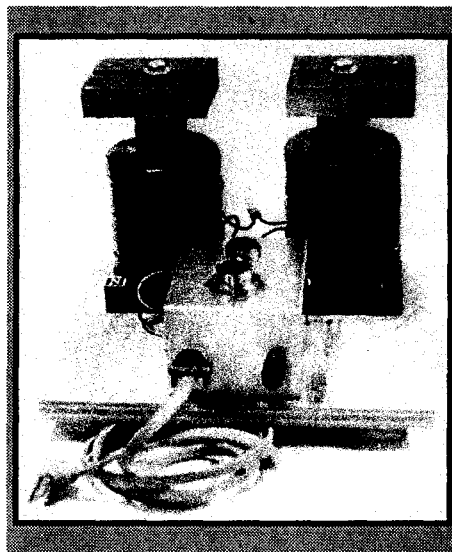
Make & Restore Magnets

HOW TO BUILD A
MAGNETO MAGNETIZER

by Dave Gingery

Many people collect and restore old engines and in the process discover that the old iron magnets in the magneto have lost most or all of their magnetism. Without a healthy spark, the engine won't run.

Here, Dave will show you how to build a device to recharge these old magnets. It's certainly not a novel invention. What Dave has done is show you how to build a proven device from currently available materials, and at low cost.



You can recharge old magneto magnets, and create new iron magnets for experimental purposes. This will not recharge newer alnico, samarium, and similar alloy magnets since these need an enormous magnetic impulse beyond the capabilities of this machine. And beside these newer magnets usually don't go "dead" like "plain" ones.

Dave will show you how a magneto works, how to test one, how the magnetizer works and will show you in detail how to build one. He'll give you all the tricks on building the base, winding the coils, building and testing the power supply, and, of course, on using the machine.

You can build this machine quickly and inexpensively. Dave will show you how to avoid what few problems you might encounter. Great for engine restorers, science experimenters, or even as a science fair project. Geez! Maybe you can magnetize that bolt in your neck so you can attract beautiful women. Well... maybe not. Another great how-to manual from master builder, Dave Gingery. Order a copy today. 8 1/2 x 11 booklet 36 pages
No. 3008

\$7.95

Food & Drink



WILD CHILI!

HOT & SPICY CHILI

by DeWitt, Wilan & Stock

This is one of the two best chili books I've ever seen.

"A Collection of 150 of the Very Best Chili Recipes from the Chili Capitals of America." Try "Ed's Buffalo Snort Green Chili", "Cock-Eyed Black Bull Chili", "Snake Rattle & Roll No-Beans Chili", or even "Buzzard's Breath Chili". Most of these recipes have won awards in chili cook-off contests, and although I've haven't tried them yet, I can tell they've got some twists, turns and secrets that are well worth experimenting with.

Contents include the evolution of chili con carne, chili cookin' pantry and primer, cookoff chilis, southwestern chilis, chilis of celebrities & friends, starters, accompaniments and fine finishes. You also get an appendix listing publications, associations, cookoffs, mail-order suppliers, and a bibliography of other publications.

Serve you and your friends a bowl of hot, tasty chili and wash it down with a bottle of top-rate homebrewed ale. You'll be famous. Good eating. Try it. 7 1/2 x 9 softcover 277 pages

No. 6068

\$12.95

MAKE CHEESE!

CHEESEMAKING MADE EASY

by Ricki & Robert Carroll

Make your own cheese! Good stuff! The authors will tell you how, in easy-to-understand terms - from simple Cottage Cheese and Mozzarella to delicious Blue, Gouda and Colby cheese. You'll be surprised how easy it is. How little equipment you'll need. How inexpensive, particularly if you have a source of cow's or goat's milk. And how delicious the results, even on your first attempt. Choose your favorites from sixty different varieties.

Great book! Great photos, drawings and recipes.

Get a copy. A skill practiced for centuries, but one that few people know. But you will. Order today. 8 1/2 x 7 softcover 136 pages

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Soda Pop!

SODA POP!

Make your own soda! It's easy! And it's great soda!

Build this remarkably simple device using hardware store components, hook it to a bottle of carbon dioxide, and you're ready to make soda. The major expense is the CO2 tank and its regulator. But you'll quickly recover that cost in a single summer.



You can make great root beer, carbonate Kool-Aid, Coca-Cola, and other drinks at bargain prices. You can make gallon after gallon of soda water for ice cream sodas or for mixing with your favorite scotch. Experiment!

It's one of the most useful and popular machines (at least with the kids) I've ever built. A single small tank of CO2 last me about a year, and that's an ocean of soda. Each jug is very inexpensive. Get a copy, and build a soda pop machine!

5 1/2 x 8 1/2 booklet 22 pages

No. 88

\$3.00

Soft Drinks!

SOFT DRINKS

by Colin Emmins
Shire Series No. 269

"With its sparkling drinks, squashes, mixers, fruit juices and natural waters, the commercial soft drinks industry is barely two hundred years old but many of its products developed from earlier sources: from the herbal brews intended to flavour and purify a suspect water supply, from the spa and spring waters favoured since antiquity and from the fruit-flavoured waters of the Stuart and Georgian refreshment houses. Tracing those origins through the scientific and early commercial developments of two hundred years ago, this book goes on to show how public taste and technological improvements have combined to provide the profusion of soft drinks flavours now widely available..."



British soda pop has a history that is even more interesting than our own. Get a copy of this and explore! 5 1/2 x 8 booklet 32 pages

No. 6081

\$4.25

Brew World-Class Beer!

BREWING THE WORLD'S GREAT BEERS

A Step-by-Step Guide

by Dave Miller

If you drink light beer out of a can because you think beer has to taste like aluminum, this book is certainly NOT for you. This is for people want to brew and drink great beer. This book will show you how to come extremely close to duplicating the world's finest beers. You'll learn how it's done step-by-step right here.

Chapters include getting started, steps to better brewing with malt extract, first steps in grain brewing, the last step: all grain brewing, going semi-pro, glossary, bibliography, and sources.

This is full tilt. No simplification. You can brew a quality pale ale, a pilsner, or you can jury-rig an old refrigerator and get into lagering. You'll learn all the details of yeast, malt and measurements in degrees Lovibond, sugars, hops and their AAU's, all the equipment and techniques. If you really get into this, you'll learn the intricate technique of maintaining pure yeast

cultures just as the labs in the biggest breweries do and lots more.

You can make great ale, stout, porter, German ales, weizenbier, Munich dunkel, helles bock, and much more. You'll prob-

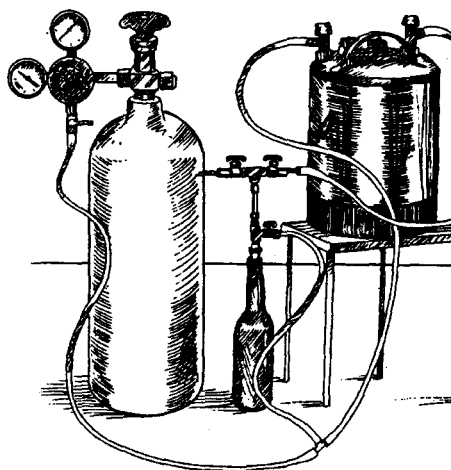
ably want to make some of your own brewery equipment. Your wife just might use the rolling pin on you when she finds you've returned the basement into a giant chemistry set, and when she finds that you and your friends are rarely sober anymore. But doesn't it sound like fun?

You get sources for brewing publications, associations, equipment, supplies and all the rest. This is one of the best brew-

ing books I've seen yet. Well illustrated. An absolute must for the beer snob who dreams of brewing the best. Consider it while I open a brew. 6x9 softcover 150 pages

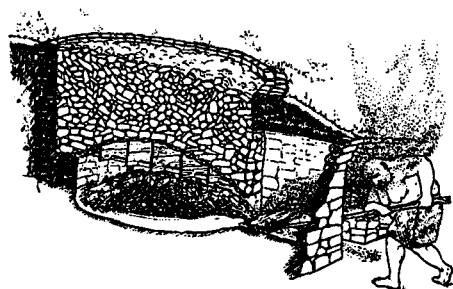
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Homesteading & Survival



Limekilns and Limeburning

LIMEKILNS AND LIMEBURNING

by Richard Williams
Shire Series No. 236

"Disused limekilns in various degrees of dilapidation can be seen all over Britain. The best known are probably those near harbours or coves but there are many on farmland, in disused quarries or beside inland waterways. Limeburning appears to have been practised in prehistoric times in the Near East but the more extensive use of lime for mortar and as an agricultural manure may be attributed to the Romans. The author describes the development of limeburning, the different types of limekiln and siting considerations. The chemical process, the sources of raw materials and types of fuel are covered..."

If you are going to build your dream house of bricks or quarried stone, you're going to need some glue to stick the pieces together. Here, you'll learn how the Brits made the glue they needed to stick their stones together. 5 1/2 x 8 booklet 32 pages

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How to Have a Great Retirement on a Limited Budget

Diane Warner

HOW TO HAVE A GREAT RETIREMENT ON A LIMITED BUDGET

by Diane Warner

"If you're looking for dull, dry financial advice for planning your golden years, you won't find it here. This book includes only practical, proven ways to enjoy a full, fun retirement - without emptying your bank account!

...gems like how to... • shop smart so little things don't add up to big bills • eat a

well-balanced diet... on a well-balanced budge • stay healthy and keep medical costs down • have a lot of fun without a lot of funds...

...advice on... • wise buys in cars • ways to lower your tax and insurance expenses • how to travel well on a tight budget • what to consider in deciding where to retire • housing options from homes to condos, mobile homes to houseboats..."

This book is going to become more and more valuable as inevitable Social Security cuts hit us. If you're retired, this is valuable now. If you're like the rest of us who realize that Social Security will never fund our retirement (at least not completely), this book is quite useful now, and more so when we come eye-to-eye with the possibility of old-age poverty. In other words, this is something to look at NOW. A reassuring book. 7x9 softcover 145 pages

No. 6074

\$12.95



2 Oz Backpacker

THE 2 OZ. BACKPACKER

A Problem Solving Manual for Use in the Wilds

by Robert S. Wood

"This featherweight little book will keep you out of trouble in the wilds by helping you make decisions like a veteran wilderness traveler. It will help you get the most from the food and gear you carry on your back, making your trip safer, more comfortable and, above all, more fun.

HOW TO...make quick repairs to packs, boots, tents, beds and stoves...choose and develop a campsite for maximum comfort

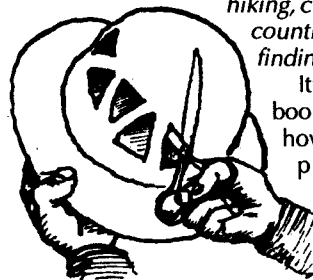
and shelter...deal with emergencies, storms and other difficulties... treat blisters, hypothermia, sunburn, bleeding, elevation sickness, etc.... keep snug, dry, comfortable and warm in heavy weather.

PLUS TIPS ON fire building, cooking, water treatment, getting found when lost, hiking, climbing, cross-country and route-finding techniques."

It's a great little book full of useful how-to for backpacking and camping. It's small enough that it would easily fit in the glove-box of your car for emergency use. Good stuff. Get one. 4 x 6 1/2 softcover 128 pages

No. 6078

\$5.95



FIVE ACRES AND INDEPENDENCE

by M. G. Kainb

Tell the boss to hang it, and move to the open country and homestead! It's possible. This reprint of the 1935 original will show you as it did thousands during the Depression how to survive comfortably on five acres. You'll learn about greenhouses, coldframes, soil, manure, fertilizers, compost, tools, weeds, orchards, pruning, grafting, seeds, transplanting, berries, things to sell every day, grapes, storage, and much more. There's so much info here at such a low price, you can't afford not to have a copy. 397 pages 5 1/2 x 8 1/2 paperback Cat. no. 608 \$6.95

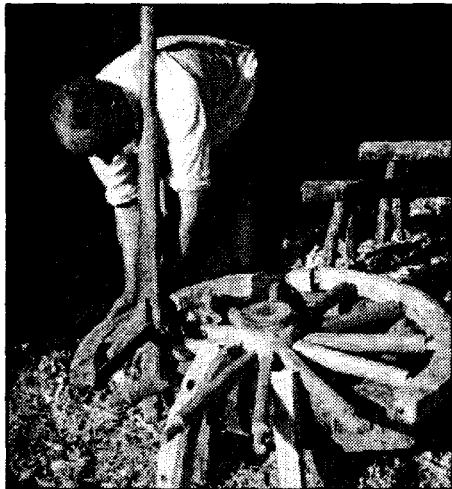
Homestead!

Tell the Boss to Shove It!





Homesteading & Survival



Wheelwright!

THE VILLAGE WHEELWRIGHT

by Jocelyn Bailey
Shire Series No. 11

Another look at early British technology. "...the term wheelwright was commonly applied to craftsmen whose work also included making field gates, coffins and much else besides. This book describes and illustrates the many aspects of their work: the layout of their shop; the timber they used and sawyers who cut it up for them; the waggons they built; the making of wheels and the tools they used...."

Can you take a tree and turn it into a wagon wheel? 5 1/2 x 8 booklet 32 pages
No. 6087 \$4.25



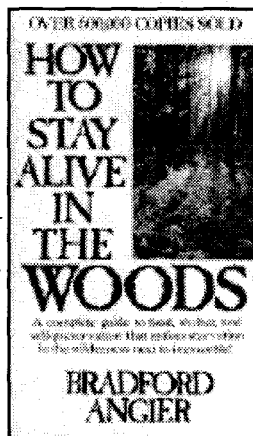
SURVIVE IN THE WOODS!

HOW TO STAY ALIVE IN THE WOODS

by Bradford Angier

"For over twenty years, sportsmen, hunters, and camping families have been carrying this book with them every time they venture into the woods. It is a life-saving tool which details all of nature's resources and shows — in 26 clearly written, illustrated chapters — how to find food, water, warmth, and shelter when lost or stranded.

The book is full of secrets that can help save time, energy — and even lives. For example, it



tells: how to spark a fire by using a drop of water as a lens; how to obtain meat and fish by primitive means; and how to protect yourself against natural hazards..."

That pretty well says it. This "drug-store" paperback is wall-to-wall practical tips and how-to. Lots of quality information for a low price. A classic! Get one! 4 x 7 mass paperback 285 pages.

No. 682

\$8.00

British Pottery Works!

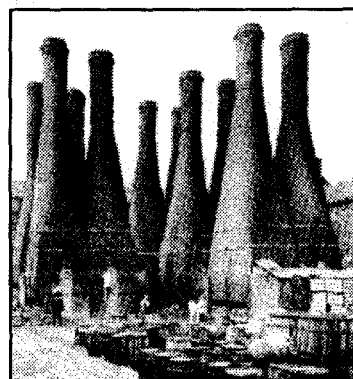
THE POTTERIES

by David Sekers
Shire Series No. 62

"Explore the famous pottery industry near Stoke-on-Trent in England. 'This little book shows how the potteries became such a remarkable place... The traditional manufacturing skill so the potters are illustrated in sequence, ending with the climax of the coal firing of bottle ovens, the cause of so much pollution.'

See photos of polluted cities, piles of bone destined for bone china, dinner plates being formed by a fly press, incredible bottle kilns and so much more. Fascinating technology. 5 1/2 x 8 booklet 32 pages
No. 6086

\$4.25



WINDMILLS

SAMSON OIL-RITE WINDMILLS

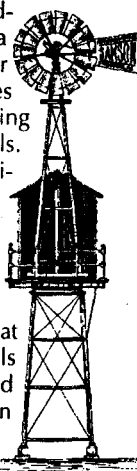
by Stover Mfg. and Engine Co.

Just about every farm at the turn of the century located in the Midwest and Plains states had a windmill to pump water for livestock. Here's the sales catalog for one of the leading manufacturers of those mills.

You'll see all the mechanical details: the gears, bearing, vanes, pumps, and the rest. And you'll get complete specifications.

If you're interested in wind power, this is a great reference, since these mills were built to perform and last. I'm sure many are still in operation. If you're going to design your own windmill, it might pay to look at a proven design. And besides, the price is right. 8 1/2 x 11 booklet facsimile reprint 22 pages
No. 2011

\$4.95



Put More Than Just a Car in a Car Port!

LOW-COST DOUBLE CARPORT PLANS

by Ken Dixon

Dixon will show you how to build a low-cost shelter consisting of a sturdy frame covered with a tarpaulin. It will provide a surprising degree shelter for your car.

OR shelter for logs you may have drying.

OR shelter for

your out-

d o o r

foundry fur-

nace (watch the

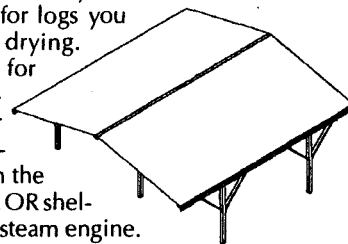
fire hazard). OR shel-

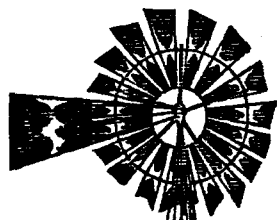
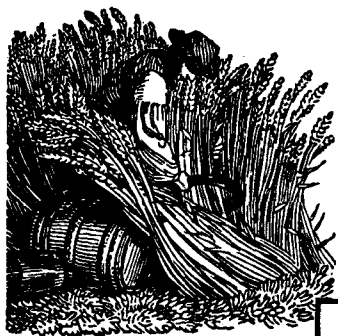
ter for your steam engine.

OR, I think you get the idea.

Estimated cost looks like about \$200 (1993 prices), and as much as \$500 if you want to completely frame it out and put on a shingle roof. You get a well-done booklet with complete plans and how-to from someone who has done it. A great low-cost shelter for a craftsman. Think about it. 5 1/2 x 8 1/2 booklet 13 pages
No. 5007

\$4.95





Homesteading & Surviv

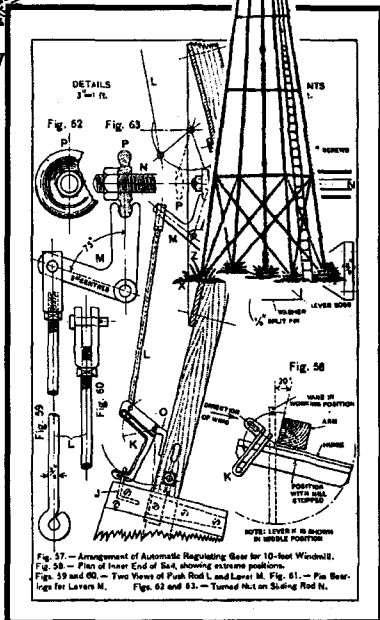
WINDMOTORS

by F. E. Powell
reprinted by
Lindsay Publications

Put the wind to work with one of these turn-of-the-century designs.

You'll learn about different types of windmills, some of them unusual. Then you'll be shown how to build a model tower windmill similar to those in Holland.

Chapter 3 will show you how to build a real power-producing windmill with three foot diameter sails. It may be a small windmotor, but it can drive a small dynamo. You



WINDMOTORS

get all the important design details.

In Chapter 4 you are shown how to build a 6 foot diameter windmill capable of driving a 30 watt dynamo at 16 mph. You'll see many detailed drawings showing how the all-wood machine is built, and how metal gearing brings the power down to ground level.

Another chapter reveals a 10 foot diameter windmotor. The last chapter gives you tips on generating electricity—high tech in 1910! Obviously better generators are available now, but the basic principles still apply, and the control methods still work.

I think you'll enjoy this book. These mills may not be as hot as modern designs, but building one of these babies should be relatively easy and low-cost. You get great designs from a simpler time when simpler materials were used to get surprisingly good performance.

A really nice little book to have. Low cost. Get a copy.

5 1/2 x 8 1/2 softcover 88 pages well-illustrated

No. 4279

\$6.95

SLOW PHONE, FAST FAX!

Dear Sir:

I am impressed with your expedient service... After several attempts to order by phone, I followed the catalog's advice and tried by fax. I placed my order and within two days or so, the order was on my doorstep (priority mail). I was quite pleasantly surprised with the promptness of your service. I am also enjoying the quality books you offer! Thank you.

Ted Kersten, San Luis Obispo CA



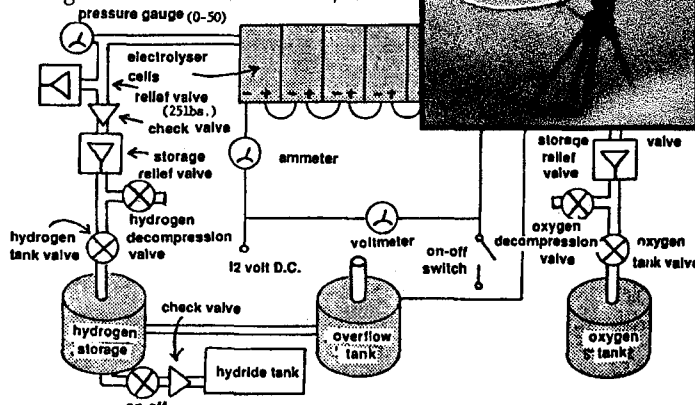
Fuel From Water

Energy Independence with Hydrogen

FUEL FROM WATER

by Michael A. Peavey

Here's the best book of its type that I've seen yet. You'll read about hydrogen generators, storage devices, modifications of autos for using hydrogen fuel, the hydrogen homestead and more. You get lists of manufacturers, other



books, and sources of additional information.

Chapters include electrolysis production of hydrogen, chemical hydrogen production, fuel from trash, storing hydrogen, engine modifications, electricity from hydrogen, stationary applications, safety and the hydrogen economy.

You get both practical how-to and lots of commercial how-to that might be too expensive or difficult for you to use. But even the high end equipment will offer ideas that you might be able to use.

Hydrogen can be useful not

only for powering automobiles and other engines, but it can be used to store energy generated by windmills. Why store electricity in lead-acid cells if you just want to heat your house? Burn the hydrogen in a motor-generator unit to convert it back to electricity when needed. These are some ideas to consider.

Excellent book. Great theory. Great ideas. Loads of useful illustrations. We've sold countless copies of this book over the years. Rare information. Get a copy. I think you'll like it. 8 1/2 x 11 softcover 250 pages

No. 2010

\$19.95

Incredibly Readable PHYSICS TEXT!

It almost reads like a magazine!

FROM ALCHEMY TO QUARKS

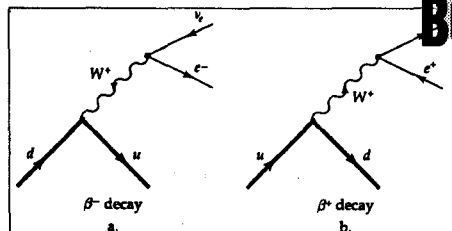
by Sheldon L. Glashow

What a book! This is a mixture of science, history, and showmanship. It's just plain fun if you're curious about the world around you. And if you're not curious then why are reading THIS catalog?

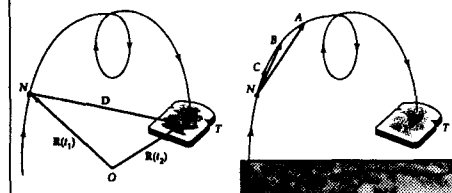
This book "is addressed to the student who has not studied physical science or mathematics in depth. He or she must be conversant with algebra and have studied high-school chemistry or physics..."

Just about anywhere you open the book you'll find something fascinating. He starts out with a brief history of time, how the days of the week got their names, how we measure time, length and on and on. Did you know in Thailand the unit of measure is the Nin and .0212 meter in length? That we buy oil in 42 gallon barrels and wine in 31.5 gallon barrels?

How about a short history of ther-

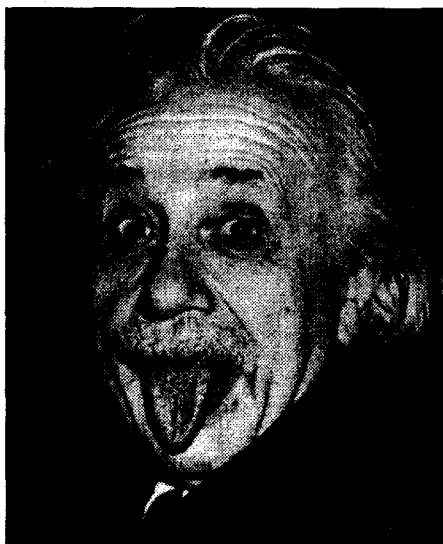


You will even learn about Feynman Diagrams!



mometers, phlogiston, genealogy of the Bernoulli family, or how chemists came to believe in atoms? Do you remember a TV program years ago with James Burke called Connections? This book reminds me of that. This is popular history, real physics (yes, with problems), gossip and all kinds of fun things.

I'm fascinated by Erwin Schrodinger's equation which shows the wave function of an object moving in response to a force, in other words, it tells us how a photon can be



If I had a tongue like this, I could rule the world!



a particle, yet act like a wave. Glashow tells us that Schrodinger slipped away in 1925 to write leaving his wife in Vienna. But the first thing he wrote was a letter to one of his old girlfriends in Vienna. She joined him. We don't exactly know who she was or what she was doing, but over the next twelve months Schrodinger cranked out an amazing series of scientific papers. The world of physics had never seen so many fresh, earth-shaking ideas come out of one man in such a short period of time. She must have been one helluva woman! (And you thought science was cut and dried!)

This is a physics course for non-scientists. And it IS fun. You get all the standard material: motion, energy and momentum, behavior of gases, heat, atoms and elements, electricity, magnetism, waves, quantum mechanics, the world according to Einstein, inside the nucleus, elementary particles, and the standard model.

Physics is a study of the way the world works. This is a fun way to learn about basic principles that will help you understand why engines work, why certain elements combine only with other elements, why you can't have electricity flowing without magnetism, or how clocks can be set using the star. You'll also see that crazy nuclear physicist, Niehls Bohr, blasting down the road on his motorcycle with some babe!



Niehls Bohr dirt biking in a suit!

I'll say it again. Great book. Expensive. Of course. This is a standard text at Harvard University. But you really get your money's worth. I love it. Or can't you tell? 7 1/2 x 9 1/2 hardcover 692 pages No. 5010 \$59.95

THINKERTOYS

by Michael Michalko

I haven't read all of this yet, but what I've read is great. Every human bean (or is it being?) has a tendency to get into predictable ruts, especially in his thinking. Tell someone something, and they're likely to believe it. They never question it. So how creative do you think these people are? Right. Zip.

People think I'm really creative on one hand, but get really upset with me because I question what they believe and almost everything they say. This book will teach you valuable techniques for looking at the world, throwing out the accepted BS, and ask "What's really happening here?". When you do that, you're well on your way toward being creative.

ThinkerToys



Thirty eight chapters include: false faces, slice and dice, cherry split, think bubbles, tug-of-war, idea box, idea grid, the toothache tree, future fruit, ideatoons, Worrywillie's Guide to Prioritizing, rattlesnakes and roses, daVinci's technique, Dali's technique, Book of the Dead, and much more!

"In hindsight, every great idea seems obvious. But how can you be the person who comes up with those ideas? THINKERTOYS makes it easier with over 30 meticulously outlined techniques, and hundreds of hints, tricks, tips, and tales to turn anyone into a startlingly creative thinker..."

[It] will teach you to generate ideas for new businesses, new products, product extensions, new markets, and new sales techniques..."



Creativity and the courage to act on it is the difference between being a leader or a follower, between being a success or a failure, or between being looked up to or down upon. Which are you going to be?

I know from experience that creative people make the world go around. Ask Tom Edison. Get hot! Get a copy of this and be a winner. I gotta go read some more of this... 7 1/2 x 9 softcover 335 pages

No. 5016

\$17.95

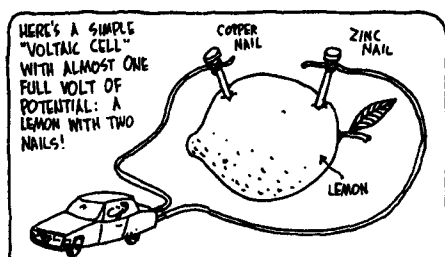
Cartoon Guide to Physics!

THE CARTOON GUIDE TO PHYSICS

by Gonick & Huffman

Learn the basics of physics (the science of energy) with this cartoon guide. It can't get any more painless or any more fun than this. It only covers mechanics and electricity & magnetism, but those are probably the two fields you'll most often encounter every day.

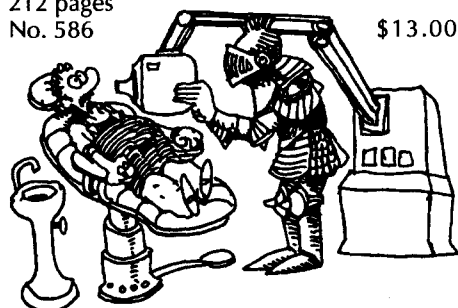
Learn about satellite motion, orbits, Newton's third law, collisions, rotations, capacitors, electric field, Faraday induction, inductors, AC and DC, Maxwell's equations and more.



If you build machines, they're powered by energy. If you are to enjoy building machines and do your best and avoid mistakes, you should know the basics of physics. Want to build a perpetual motion machine? You had better study physics. It could save you a lot of time, money, and grief.

This is a great but brief introduction into what can be a fantastically complex field. But that's what makes it interesting – you'll never know it all. Get a copy of this and learn. It will whet your appetite for more. 7 1/2 x 9 softcover 212 pages

No. 586 \$13.00



PROCEDURES IN EXPERIMENTAL PHYSICS

by John Strong

reprinted by Lindsay Publications

If you consider yourself an experimenter, an inventor, or a builder of unusual machines and equipment, you must have a copy of this fantastic classic text. No two ways about it.

You'll find wall-to-wall practical how-to and incredible illustrations on almost every one of the more than 600 pages. Chapters include: laboratory glass blowing, laboratory optical work, technique of high vacuum, coating of surfaces by evaporation and sputtering, the use of fused silica, electrometers and electroscopes, Geiger counters, vacuum thermopiles and the measurement of radiant energy, optics, photoelectric cells and amplifiers, photography in the lab, heat and high temperature, notes on the materials of research, notes on the construction and design of instruments and apparatus, and molding and casting.

This is some incredible stuff! Learn how to blow glass and make aspirators, distillation condensers, and so on. Learn how to seal copper to glass so that you can imbed electrodes. Learn how to rough cut lens blanks from large plates of glass and then grind them into lenses on your homebuilt lens grinder.

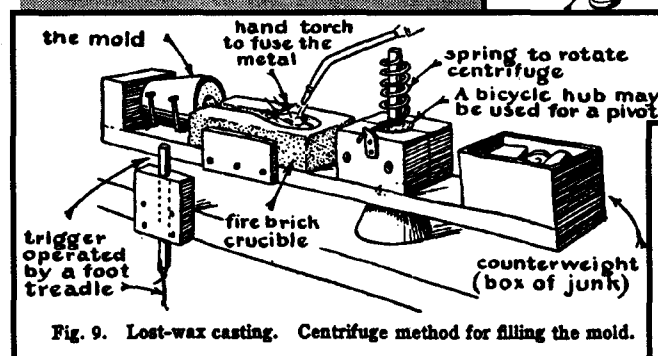


Fig. 9. Lost-wax casting. Centrifuge method for filling the mold.

Learn how to make a parabolic telescope mirror using the standard techniques. Learn to make unusual equipment to test the finished mirror. Learn how to grind a Schmidt lens.

Build high vacuum roughing pumps, getters for creating the highest vacuums, diffusion pumps using mercury and oil and much more. Silver mirrors, even with aluminum! Manipulate fused quartz strands to build a microbalance sensitive down to a billionth of a gram per division! And there's so much more!

Build a Compton adjustable quadrant electrometer, a Hoffman electrometer, and others useful for x-ray and cosmic ray work. Build a Geiger counter. You can build your own Geiger-Mueller tube if you master the high-vacuum technique taught earlier. Unfortunately, most of the electronics described is based on vacuum tubes of fifty years ago rather than on transistors.

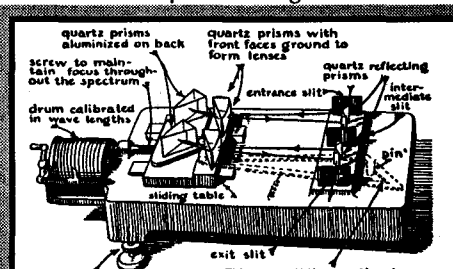
Build vacuum thermopiles that measure

Procedures in Experimental Physics

Wall-to-Wall How-to! Classic Text! Incredible Illustrations!

infrared, visible light and ultraviolet so accurately that they can be used to calibrate photographic lightmeters and such. You've heard of carbon arc lights, but do you know how to build iron arc lights? Or low pressure mercury arc lights? And others? You can even build a machine to measure the wavelength of colored light.

You'll find details on hydrogen furnaces, crucibles, burners, electric arc furnaces, and even a lab setup for making artificial rubies



This cam sliding on the pin rotates the rear prism table maintaining minimum deviation throughout the spectrum. All the slits are separately adjustable. The entrance and exit slits are curved to compensate for prismatic distortion.

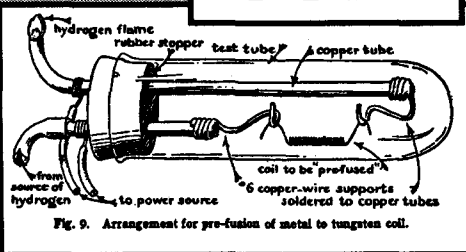
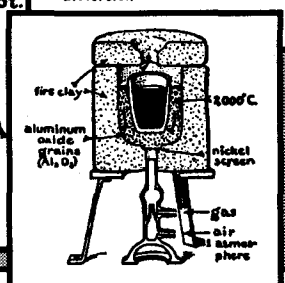


Fig. 9. Arrangement for pre-fusion of metal to tungsten coil.

and sapphires! And there's much more – even down to what we consider the "easy stuff" like using a lathe and sand casting.

This is a fantastic book loaded with construction secrets for unusual equipment that you should have. First published in 1938, this baby went through a couple of dozen printings! It's a classic. It's incredible. You should have a copy for reference if nothing else. Highly recommended. Order a copy today. 5 1/2 x 8 1/2 sewn softcover 642 pages

No. 4562

\$24.95

Computer Projects

For kids like us who are learning

COMPUTERS
49 Science Fair
Projects
by Bonnet &
Keen

If you'd like to get your kid interested in computers or you've just picked up a machine, and don't have the slightest idea about programming in BASIC. Here's a book that delivers 49 different projects.

"Fun and creative, the programs are completely functional, yet are purposely designed for students to use as springboards for more sophisticated applications..."

You get very simple programs that deal with games of chance, aircraft design, sorting and filing data, calculating energy costs, making mathematical conversions, calculating odds, forecasting weather, and much more.

If you're computer illiterate, get hip. This is for junior high kids, but I won't tell anyone if you use it to get started in computers. It's a great place to start. And if nothing else, these make great science fair projects. 7 1/2 x 9 1/2 softcover 174 pages

No. 5018

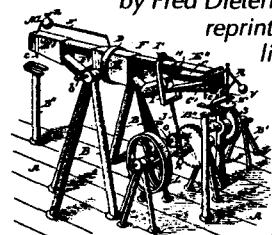
\$10.95

Perpetual Motion

FIFTY PERPETUAL MOTION MECHANISMS

by Fred Dieterich

reprinted by Lindsay Publications



The author was a patent attorney who wrote a book in 1899 covering the process of securing a patent.

One short section of his book covers perpetual motion inventions which are unpatentable. Dieterich, who was outraged by claims of perpetual motion, presents drawings of 50 different mechanisms. No doubt, you've already seen a number of these, but others are unique, and all are interesting.

You'll see the Marquis of Worcester wheel, the Horace Wickham machine, the 1868 device of Dr. Drasch of Austria, an electric device, the self-moving railway, the Orfyreus 1720 wheel, a complicated water screw, and others.

Maybe you're trying to build a machine and want to avoid previous failures. Or you're a skeptic and want a good laugh. Whatever, the material is interesting and the price is low. Get a copy. You'll like it. 8 1/2 x 5 1/2 booklet 22 pages

No. 898

\$3.75

Locksmithing!

LOCKS & LOCKSMITHING
3RD EDITION

by Roper & Phillips

From the back cover:

"Whether you're an experienced locksmith, someone who's just starting out in the locksmithing business, or a do-it-yourselfer who wants to put in his own security system, there is no better place to turn for guidance in selecting, installing, and maintaining today's most advanced locks and security hardware..."

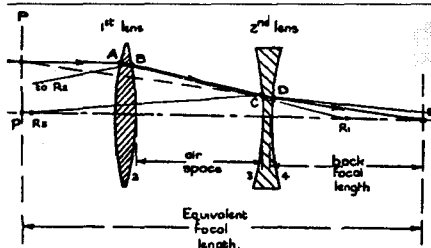
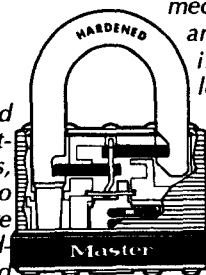
You'll find the very latest information on •All kinds of locks and keysets - including pad-lock, warded, lever, disc-tumbler, schlage wafer-tumbler, pin-tumbler cylinder, double-bitted, and combination •Home,

business, office, automotive, auxiliary door, and vending machine locks •High-security mechanical locks and electrical access and exit control systems •Master keying systems •Lock decoding, lockpicking, and emergency entry tools and procedures •The business and law of locksmithing, including standards for locksmith licensing, bonding, and certification •Locksmithing equipment manufacturer and suppliers •Plug follower and holder diameters for today's most popular locks..."

This is a book we have offered for many years - updated and better than ever. Loads of illustrations and practical how-to. Excellent book. Order a copy today! 7 1/2 x 9 softcover 437 pages

No. 110

\$24.95



OPTICS AND OPTICAL INSTRUMENTS

by B.K. Johnson

Here's a reprint of a 1947 book that reveals in simple formulas how to design or at least understand microscopes, telescopes, collimators, simple and complex lenses, photographic lenses, mirrors and more.

Optical Instruments

Chapters include: reflection and refraction, focal length measurements, the eye, the telescope, the microscope, photographic lenses, optical projection systems, working and testing optical glass, plus an appendix describing how to silver mirrors, cement lenses, and more.

You won't need this material everyday. But if you need basic info on lenses without all the complex theory, get a copy of this. Quite reasonably priced. 5 1/2 x 8 1/2 softcover 224 pages

No. 551

\$6.95

Auto Repair for Dummies

AUTO REPAIR FOR DUMMIES

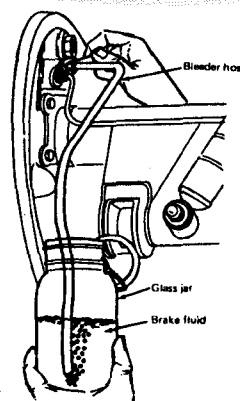
by Deanna Sclar

Walk through a bookstore and it seems every other title is "for dummies" - "Sleeping in Trees for Dummies" - or- "Animal Castration for Dummies" - or- "Nose Picking for Dummies". Do we all have to be dummies? Can't any of us just be curious?

Here's an excellent book for the curious on repairing autos. You can still put in points, plug and condensers. You should be able to check your brake fluid. You may want to know how to check your brakes for wear. This is a useful book. Not all of us are auto buffs. But we all drive. And we should all know the basics about the technology we use.

"This book is not for confirmed Do-It-Yourselfers. It is for you if you have never held a wrench... cannot identify anything under the hood of your car, and you're positive that if you try to work on your own car you will blow it up.

...You can save a tremendous amount of



How to Bleed Your Brakes
The Bendix Corp.

money, extend the life of your car, save on fuel, do your bit for the environment, and have lots of fun...

You will learn how to keep your car running smoothly, how to tell what's wrong with your car when trouble starts, whether or not you can handle a problem or should seek the help of a mechanic, how to buy a new or used car, how to find a good mechanic..."

Well illustrated. Easy to read. And practical. Great gift for your kid who just bought his

first car. Great for you and me, too! Give a copy to your bitchy sister-in-law and tell her to get out and pack your wheel bearings. (A 12-gauge might make her work a little faster).

Good book. Second edition. First out in 1976 and revised in 1988. It has been a steady seller, so you know it must be good. Consider it. 8x9 plastic spiral binding 467 pages

No. 1385

\$19.95

Gas into Liquid!

LIQUID AIR

by T. O'Connor Sloane

reprinted by Lindsay Publications Inc

This fascinating 1899 book is about the unusual machines that take the invisible air around us, cool it, and turn it into a liquid.

You'll discover interesting historical details about early thermometers, how they were built, and how they worked. You'll review the lives, work, and methods of early investigators including Faraday, Natterer, Colladon, Pictet, Cailletet, Olszewski, Dear, Tripler, and of course, Linde. Explore the Joule-Thomson effect, and examine Hampson's apparatus. You'll try your hand at liquid air experiments, and in the last chapter see what 1899 experimenters thought the applications of liquid air should be.

This is not really a how-to cookbook for machines. It is a 17 chapter exploration of early investigators' ideas and their methods. An avid experimenter will find a wealth of detailed data to digest. The important machines and details about them are here in text and diagrams. You will find more enjoyable and useful information on liquid air in this single book than anywhere else that I know of. It might just provide the missing link you need to begin experimenting with very low temperatures.

An unusual book on an unusual topic. High quality. Fascinating topic. Definitely worth having. Get a copy for your reference library. You'll like it. 5 1/2 x 8 1/2 softcover 365 pages No. 20021

\$11.95

Temperatures - Very Low & Very High

TEMPERATURES

VERY LOW AND VERY HIGH

by Mark W. Zemansky

For years now my favorite college physics text has been the one by Sears & Zemansky. I discovered it in high school when I wanted to build a gas liquification machine. Now I discover Doc Zemansky has done a whole book on the concept of temperature. Neat!

"This concise study of temperature and its extremes is designed to provide physics students, laymen and the general reader a greater understanding into the total meaning of 'temperature' as a concept..."

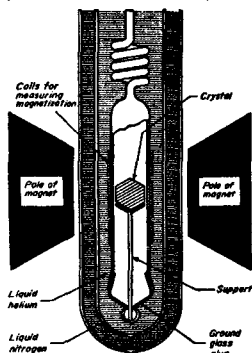
How are extremes of temperature measured? How are such extremes of temperature produced? What is the international temperature scale? Also covered: isothermic and adiabatic processes, The Third Law of Thermodynamics, Fusion reactions, Planck's Radiation Law, Energy and entropy, Thermodynamics and negative temperature.

The initial chapters of this volume deal with temperature as it exists in macroscopic physics. The story behind the production and measurement of temperature near absolute zero (-450.67 F) is discussed in the succeeding chapters followed by a review of the production and measurement in the fifty million degree range. And finally, the last chapter goes beyond infinity into the realm of negative temperatures."

Think about it! Build yourself a 50,000 degree plasma torch! What couldn't you cut up with that? Learn how very low and very high temperatures are achieved. As for negative temperature, I haven't gotten to that chapter yet. Inexpensive good reading. Unusual. By someone who knows. 5 1/2 x 8 1/2 softcover 144 pages

No. 590

\$4.95



BUILDING SCIENTIFIC APPARATUS

A Practical Guide to Design and Construction

by Moore, Davis, Coplan & Greer

The ultimate equipment book is Procedures in Experimental Physics offered elsewhere in this catalog. This book is the modern equivalent. I don't think this volume in any way surpasses Procedures but it is the closest thing I've seen yet. And it's about equipment built with modern materials.

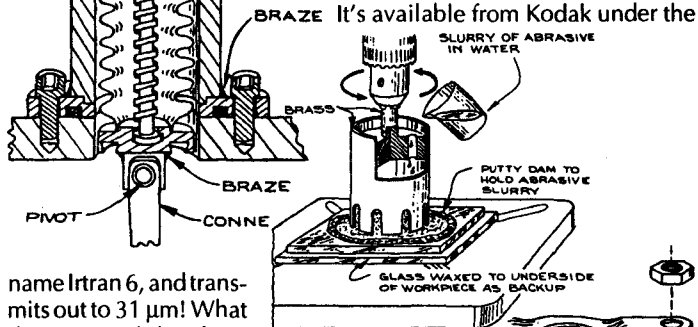
Chapters include: mechanical design, working with glass, vacuum techniques, optics, charged-particle optics, electronics, measurement and control of temperature. You also get references and a list of manufacturers and suppliers.

BUILD SCIENTIFIC APPARATUS!

You'll learn about metals, alloys and their use in fabrication. You'll learn about bearings, working glass tubing, grinding and drilling glass, vacuum gauges, mechanical vacuum pumps, cryopumps, vacuum system design, cleaning optical components, features of laser design, spectrometers, Fabry-Perot interferometers, photovoltaic detectors, electron gun design, fringing-field correction, charged-particle detection, designing and building electronic equipment and much more.

You get great drawings, charts, diagrams, equations, and more.

This is modern hi-tech stuff. IC's and transistors are fabricated from semiconductors, but semiconductors also produce light. You've heard of silicon, probably germanium and gallium arsenide. But how about cadmium telluride? It's available from Kodak under the



name Irtan 6, and transmits out to 31 μ m! What do you need that for? I don't know. But neither will you unless you know this stuff is available. Then your imagination can dream up ingenious new uses.

You could be the first in your neighborhood to build a duoplasmatron ion source or a Mach-Zehnder interferometer. You could even put a bellows-sealed, wobble-drive, rotary-motion feedthrough on the mantle. Now wouldn't that raise the eyebrows of the roach exterminator next time he sprays your living room?

Knowledge of the contents of this book will push you beyond the level of the average machinist/handyman. And whether or not you use much of this material is not that important. The more you know, the more creative you can be because you have the raw material to synthesize new ideas. A smart mechanic will use this as an idea book if nothing else.

If you like to build unusual equipment, this belongs on your shelf next to Procedures in Experimental Science. Get a copy! 8 1/2 x 9 softcover 549 pages

No. 532

\$43.25

Practical Math!

One of the Most Powerful Tools Ever Devised!

PRACTICAL MATHEMATICS FOR HOME STUDY

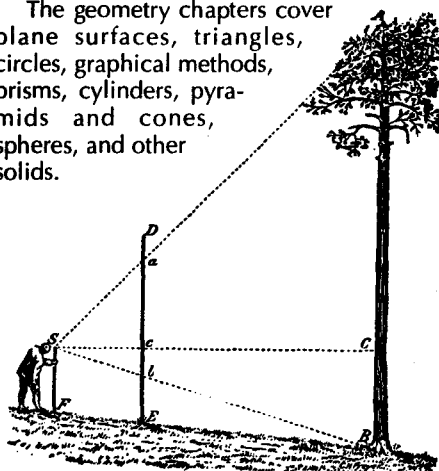
by Claude Palmer

reprinted by Lindsay Publications

Math is important to mechanics and machinists. It can mean the difference between having a design fail or getting it right the first time. If you're rusty on your math and need a good review, this is A great book to have.

Chapters include common fractions, decimal fractions, short methods, weights and measures, percentages, ratios and proportion, density and specific gravity, and powers and roots.

The geometry chapters cover plane surfaces, triangles, circles, graphical methods, prisms, cylinders, pyramids and cones, spheres, and other solids.



The algebra chapters include notation, formulas and translations, positive and negative numbers, addition and subtraction, exponents and powers, quadratic equations, variation, graphics, logarithms, angles, trig functions, trig tables, right triangle, and more.

You'll learn the math in short, clearly explained lessons. Then you'll be asked to solve problems like "Two steam boilers of the same shape are respectively 12 ft and 15 ft long. Find the ratio of their surfaces." After you solve the problem, you can check it against the answer given.

Another problem asks "To what diameter should a piece of stock be turned so that it may be milled to a hexagon and be 1 3/4 in. across the flats?"

Or solve this one: "The pulley on the headstock of a lathe is 3 in. in diameter. This is belted to an 8-in. pulley on a shaft that makes 420 revolutions per minute. At what rate will a block of wood placed in the chuck revolve?" You'll be able to solve these and hundreds of other problems.

You get a big book loaded with valuable lessons and practical problems. Get a copy and get going. 5 1/2 x 8 1/2 softcover 518 pages

No. 4775

\$12.95

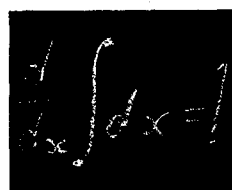
Calc Made Easy

CALCULUS MADE EASY

by Silvanus Thompson

Fear is often the biggest obstacle to learning math — all those strange symbols! When a calculus book starts out in the first sentence of first paragraph on the first page explaining what the most scary symbols mean, you know it's a good book. The author obviously wants to teach you something rather than scare you.

Any scientist or engineer will tell you calc is a tool not much different from a welder or a lathe. But I took calc from a mathematician in college, and that jerk thought calc was an art form! Most of the time I didn't know what he was talking about (I'm not sure he did either). Who's looking for beauty in numbers? I need to



solve problems.

This shows you how useful calculus is. It is as practical an approach as I've ever seen, and the author really takes the fear and confusion out of teaching this math.

Don't get me wrong. Just thumbing through this book is NOT going to teach you calc.

You're going to have to work at it. But Thompson's approach is down to earth, and he covers it all: differentiation and integration. And this is 90% of the heavy math you see in engineering books.

A lot of book for the money! If I had had this book at the same time I had that madman mathematician, I probably would have learned a lot more. It's too late for me, but not for you. Order a copy. 5 1/2 x 8 1/2 softcover 250 pages.

No. 52

\$8.95

Calculus Comic Book?!

PROF. E. MCSQUARED'S CALCULUS PRIMER

by Swann & Johnson

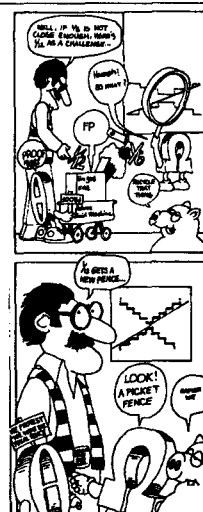
This is the craziest math book I've ever seen! I had calc in college but never in comic book form like this! You should order a copy of this and learn what it has to teach.

Calculus is the difference between engineers and non-engineers. If you would like to read engineering texts and understand what they're talking about, you need a calc background. This won't make you a pro, but you'll understand what functions and discontinuities are, limits, and derivatives. You'll pick up the language and be able to understand scientific talk.

It will take work on your part, but I've never seen a more brilliant explanation of what's happening. This is a tool like a lathe or a table saw. Learn this skill, and it will return dividends for all the years you have left to live. An unusual way to learn the core concepts of calc. 8 1/2 x 11 softcover 214 page comic book.

No. 51

\$19.95



Be A Speed Demon with Numbers!

HOW TO CALCULATE QUICKLY

by Henry Sticker

"Do you want to double or triple the speed with which you calculate? Can you run a rapid mental check over the results of your calculating machines? Can you check bills worked out for you by grocery store cash registers, on waiters' checks, on department store charge accounts? Or do you simply take their word for the disposal of your money? Don't envy friends who can perform these calculations with lightning speed and complete accuracy. Theirs is not wholly an in-born ability. You can acquire these skills by the methods described in this book.

How to Calculate Quickly is a tried and true method for helping you in the mathematics of daily life - addition, subtraction, multiplication, division, and fractions.

The author can awaken for you a faculty which is surprisingly dormant in accountants, engineers, scientists, businessmen and others who work with figures. This is 'number sense'—or the ability to recognize rela-

tions between numbers considered as whole quantities. Lack of this number sense makes it entirely possible for a scientist to be proficient in higher mathematics, but to bog down in the arithmetic of everyday life.

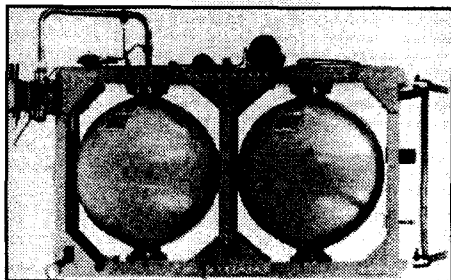
This book teaches those necessary mathematical techniques which schools neglect to teach: Horizontal addition, left to right multiplication and division, etc. You will learn a method of multiplication so rapid that you'll be able to do products in not much more time than it would take to write the problem down on paper...."

If you're not afraid of a milling machine or a ladle full of molten metal, then why should you be afraid of numbers on paper? On in this case, in your head? Math is a tool. Anyone who avoids math because they're intimidated by it is letting an extremely powerful tool go unused. This inexpensive book of tricks can help you get better use from simple math. Valuable for everyone. Dirt cheap. Get a copy. 5 1/2 x 8 softcover 185 pages

No. 598

\$3.95

Technology of Carbon and Graphite **FIBER** Composites



TECHNOLOGY OF CARBON & GRAPHITE FIBER COMPOSITES

by John Delmonte

Planning to build a stealth automobile that can rocket 120 miles an hour down the interstate and yet not register on Smokie's radar? If so, you'll need composites, and this book will take you into this hot technology.

What are composites? Fiberglass is one. Here you have glass embedded in a resin matrix. Replace the glass with carbon or graphite fibers and you end up with an incredibly strong, lightweight plastic material that is used as fan blades in jet engines, as heavy duty truck springs, or even as pressure vessels to hold oxygen, nitrogen, and helium on the space shuttle.

Chapters include: origins of carbon and graphite fibers, preparation and properties of carbon and graphite fibers, synthetic resin matrices for service to 200°C, matrices for use up to 300°C, thermoplastic matrices, surface treatments and their effect on composites, mechanical and physical properties, electrical properties and applications, environmental influences, test methods for advanced composites, composites in aircraft and automotive applications, industrial and commercial applications, high temperature resistant matrices, and manufacturing and processing techniques.

This is a great introductory industrial text. You get charts, tables, chemical structures, test data and loads of detail you'll never get from some men's magazine article. Obviously, this is not going to reveal top secret methods used by the military to build stealth fighters, but you'll come away from this book with in-depth knowledge of composites.

Expensive, but this book delivers the secrets of a high-tech material science. Tune it, and find out what's happening. Maybe you can find a way to fabricate your own! Get a copy! 6x9 hardcover 452 pages

No. 1143

\$46.50

Make Molds for Auto Bodies, Boat Hulls, & More!

ADVANCED COMPOSITE MOLD MAKING

by John J. Morena

If you want to mass produce a fiberglass auto body or boat hull or just make a few replacement fenders for an antique car and sell them, you'll need a mold upon which to lay-up the part. If you're really a hot-shot you may want to fabricate an experimental airplane you've designed using carbon-graphite fibers. It doesn't matter how big or how small your project is, you'll need a mold. And here's a dynamite book on building molds.

From the dust jacket—



"...Exceeding all other available works in scope and new-method coverage, this all-in-one resource guides you through the manufacture of both metallic and nonmetallic molds used to form or bond advanced composite parts and assemblies. It provides detailed instruction on how

to use each kind of mold-making material and execute each mold-making process.

Step by step you will see how to use innovations such as computer-aided design and manufacture of molds and tools... preimpregnated laminate fabric materials, and mass casting compounds that can be heated to 3000 degrees Fahrenheit... techniques for making metal-faced laminate tools... and reuseable vacuum bagging methods...

Unequaled coverage of a wide range of mold materials enables you to select the material most suitable to your project. Clear guidance is given on how to use epoxy, polyurethane, plaster, wood, ceramic, reinforcements such as fillers, graphite and fiberglass, laminated phenolic, formed and machined aluminum and steel, electroformed nickel, and many other materials to make high-quality advanced-composite molds.

You can depend on *Advanced Composite Mold Making* for all the design and engineering guidance necessary for making molds for producing high-quality advanced composites...

Other books will show you how to fabricate fiberglass, but how many give details on moldmaking? Here's the best I've seen. Consider it carefully. 6x9 hardcover 431 pages

No. 495

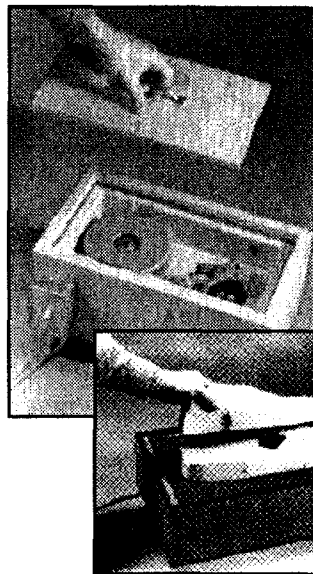
\$67.50

DO IT YOURSELF VACUUM FORMING

by Douglas E Walsh

The author wrote me:

"I tried the obvious way first, as I'm sure many others have by using a kitchen oven and shop vacuum cleaner. The results were OK, but limited to simple parts in thin plastics. The oven part works fine but the vacuum cleaner just didn't provide enough vacuum... Real vacuum pumps cost hundreds of dollars..."



I thought about it some more and came up with eight other sources for vacuum, most of which are inexpensive and one is

Vacuum Form PLASTICS!

"...simple forming for
about \$15.00 or less..."

totally free! I was then able to combine a vacuum cleaner with a cheap source of higher vacuum. This gave me that magic combination of high vacuum and high flow necessary for serious forming.

This easy-to-read book shows you how to get set up to do simple forming for around \$15.00 or less if you scrounge for parts. You can also build a two-stage high vacuum system for \$50-\$60 that can form up to 1/4" thick plastics...."

You can produce magnetic signs, parts for models, and all kinds of things if you use your imagination. You can put this simple, but powerful mass-production technique to work for you because you don't have to spend a fortune on equipment.

Chapters include the basics, heat sources, vacuum sources, forming equipment, plastics, molds, forming and finishing. You get straight forward to-the-point how-to with plenty of photos and drawings.

Possible money maker! Fun to try. Here's an excellent book by a man who has done it, and explains it clearly. Get a copy! 5 1/2 x 8 1/2 booklet-style spine 128 pages

No. 1308

\$9.95



ART OF KISSING

by William Cane

A book on kissing? Who needs a book on kissing? You do!

Look. I don't care how great you think you are as a lover, you can use all the help you can get. One of my girl friends asked me where I learned to make love. The obvious answer was "the same place I learned to do everything else I do: from a book." Then she told me that there must have been

chapters missing! When it comes to kissing, don't let that happen to you.

Listen, fish lips, it's about time you learned what it is you're supposed to know. The author supposedly got thousands of calls and letter from readers of the first edition. This new

Kiss your way into the record books!

version now includes: "The kinds of kisses men and women like most (and least!), according to the results of the world's first Internet kissing survey. • How to overcome your kissing shyness and kissing anxieties. • More lips-on instruction and wisdom from real kissers on how to perfect the first kiss, the eye kiss, the nose kiss, the neck kiss, the public kiss, and wet kiss..." and much more.

I have mixed feelings about this. It's a great book about kissing. And it's inexpensive. But, geez, what could this book teach me that my dog can't? 'Course maybe that's why I don't have many girlfriends...

It's for real. Get a copy of it. Use it. Give it away. Good book. I just wish it came with a diploma I could hang on the wall. 5x7 softcover 180 pages

No. 779

\$6.95



Meet the right people!

FRIENDS AND LOVERS

How to Meet the People You Want to Meet

by Bhaerman & McMillan

The pressure is on to meet people, right? WRONG! There's too much emphasis today on meeting people and not enough on simply having fun and that's why most of the singles bar/singles get-togethers and "can't miss" methods fail miserably. "When you're being yourself and really having fun, you can't help but radiate confidence,

enthusiasm - and attractiveness," say the authors, who help you:

- zero in on your favorite things to do, then translate those interests into a personal action plan of activities you can do with others
- keep from getting discouraged while you're finding that perfect match of interests and ambitions
- "grow your own fun" instead of waiting for it to come to you - with five ideas that are just crazy enough to work

You'll even find a list of rapport makers, ideas for graceful exits and extending or declining invitations, and other ways to turn awkward situations into comfortable ones.

"This book made me realize that I had been approaching meeting women in a haphazard and some-

what romanticized way. The idea that I could take charge of my 'social agenda' was a revelation. I'm amazed that such an obvious, simple idea should have eluded me all these years. They ought to teach this in school" - 35-year-old single man

Good book! Now I know why my



"why don't cha come over and see my Tesla coil shoot sparks?" line never seems to work. I've been looking for love in the wrong part of the high voltage lab! I know better now. If you have a tough time meeting the people who are right for you, this book can help. Much of it is common sense. And we need to be reminded of these basics as well as learn new ideas. Order a copy. 6x9 softcover 202 pages no pictures (dirty or otherwise)

No. 780

\$10.95

HOW TO FLIRT

A Practical Guide

by Marty Westerman

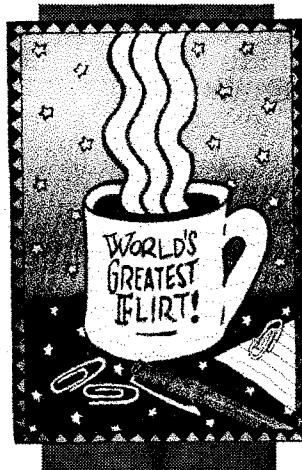
Fun book. Cute book. Accurate book. People are always looking for some new way to have fun in life. If you're fun, they will want to be a part of your life, too.

Welcome to a lost art Dr. Flirt (a.k.a. Marty Westerman) has dragged out of the dark ages, not to mention dark bars. So get ready to throw away lines like "Hey, what's a nice girl like you..." (you know the rest).

A great flirt isn't the stud with a fast line; it's the child with a smile that melts your heart. You are a terrific flirt when you tickle a baby or serve as a perfect host anytime you are yourself. Flirting isn't about hunting. It's about enjoying life and people and letting them know it. Flirting is stress free.

So, let the flirt out in you! Dr. Flirt helps out with revealing flirt Qs & As, flirting exercises and a complete list of proven flirting techniques. He lets you in on some flirt psychology and a list of the world's greatest

Flirt 'til You Drop!



flirts, including Adam and Eve (pre-apple, that is). To top it off, Westerman tells you how to deal with success and rejection and shares with you his own "7 Rules of Flirting" worth the price of the book alone.

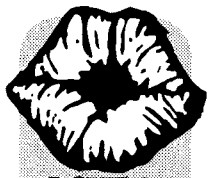
So, take this book to heart and pack away those tired old lines but feel free to use "coochie, coochie, coo" it works everytime.

Chapters include old world charm, how much fun you can have?, complete history of flirting (abridged), getting down to flirting, dealing with success and rejection, flirting the job, at school and on the fly, real life flirting options and creative dating, and the rules of flirting.

Flirting is about fun. One little technique might improve your life whether you're really looking for a date or not. Order a copy. 7x9 softcover

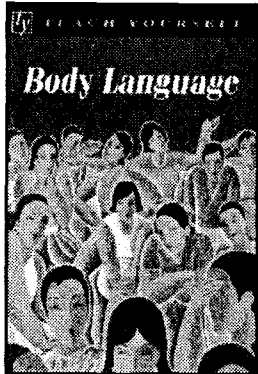
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\$6.99



LOVE &
ROMANCE

(and the lack thereof)



BODY LANGUAGE

by Gordon Wainwright

"We all use body language. Over ninety percent of all face-to-face communication is non-verbal, and the silent messages of body language often reveal more than the spoken word in conveying true feelings or attitudes. These messages are particularly significant in influencing first impressions and the self-image we project to others.

This practical guide will train you to use and interpret body language more effectively. By using the wider range of observational and practical exercises your understanding of nonverbal communication will be enhanced – in every-

Body Language!

day encounters, in personal relationships, and in meetings and interviews at work."

Some body language is pretty obvious. Crossed legs and folded arms signal a closed personal. Drumming fingers and tapping feet reveal boredom or impatience. But many other postures are not so obvious and could actually be hurting your chances of closing a deal, getting a raise, or getting a date with the person of your dreams. I found out that I'm going to have to stop meeting people at the door with a baseball bat! Interesting book. Get a copy. 5x8 softcover 183 pages

No. 785

\$7.95

How To Date Young Women For Men Over 35

Identifying Which Younger Women Are Interested In Older Men • Why She's Afraid and How to Overcome Her Fears • How to Act, Dress and Talk to Interest and Attract Her • Where to Find Her and How to Meet Her • What to Always Say, Never Say Getting that Tough First Date • How to Behave on Dates with Her • Seducing Her • Sustaining Your Affair with Her

HOW TO DATE YOUNG WOMEN FOR MEN OVER 35

by R. Don Steele

If you're an old man (over 35, yes, 35) and you want to hit on a young woman (18 to 25) this book will help you.

Chapters include What's It All About, Understand Her, Which Young Women, Boy-friends, Why Young Women, Understand Yourself, Your Motives, Get Ready for Her, Looking Good, The Right Attitude, Women First, Ethics, Court Her, Find Her, Meet Her, Talk with Her, Date Her, Sex With Her, Phase Two, Who's in Charge Here, The End, Disadvantages, Closing Advice, and Updated Helpful Hints.

What you get here are no-holds-barred information from a incurable womanizer on how to seduce women. The techniques are valid for women of all ages. I've dated women of all ages, some only half my age, and I know first hand that what he says about how young women see the world and older men is correct. This guy presents you with a practical how-to approach to seducing young women. The language is very crude in many places. If you don't like locker room talk, don't order this.

By far the worst thing about this book is that the author views women as prey. Real men treat women as equals and friends. Little boys view women as threats and have to conquer them. Be a friend to a woman, and you won't need this book. I think Steele's how-to techniques are acting lessons on how to appear to be a friend to a young woman long enough to get your hands into her pants. I've never had to act. Why should you?

Quite frankly, I think the author has problems. Having said that, I must say the book is fascinating. Useful? Yup. He tells you about dangers like: don't date women who are separated but not yet divorced or you might end up with a .357 hole in your chest. Or why you should never flirt with waitresses to any great extent. Or how one stupid phrase sent one gorgeous woman running for the hills.

Great book, no matter what kind of a man you are or what your motives. Outrageous. Disgusting. Exploitive. Repulsive. Fascinating. Order a copy. 5 1/2 x 8 1/2 softcover 208 pages – one picture (the old man with his topless 18 year old girlfriend)

No. 784

\$19.95

Keep Those SOB'S in Line!

COPING
WITH
DIFFICULT
PEOPLE

COPING WITH DIFFICULT PEOPLE

by Robert M Bramson

"The proven-effective battle plan that has helped millions deal with the troublemakers in their lives at home and at work!

The next time they try to pull something like that on you it's not going to work! Bosses, friends, family members, they've made your life hell — until now! Based on fourteen years of research and observation. Dr. Robert Bramson's proven-effective techniques are guaranteed to help you right the balance and take charge of your life. Learn how to: • Stand up to anyone – without fighting • Blunt a sniper's attack • get a clam to talk • cut off a sherman tank at the pass • manage bulldozers • get stallers off the dime • move a complainer into a problem-solving mode

Learn the six basic steps that allow you to cope with just about anyone. Reclaim the power that rightfully belongs to you in any relationship!"

I offered this before in hardcover. Now after 500,000 copies sold, you can have an inexpensive papercover edition. And it IS good.

Personally, I think Bramson wasted fourteen years in research. I come from a long line of microcephalics, and if he had spent only five minutes with my family, he would have encountered every type of emotional retard this side of the Monongahela river! I haven't really needed this book to deal with them since I chained them up in the basement. But you can use it effectively in your everyday life. (If you find yourself in this book, you're in big trouble, because we might be related! Horrors!)

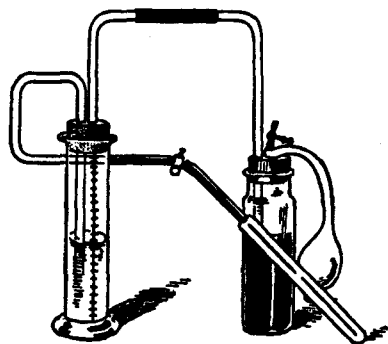
Get a copy. Keep those SOB's in line. 4x7 paperback 226 pages – mercifully, no photos

No. 708

\$5.95



CHEMISTRY

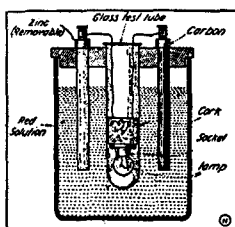


1001 Formulas

*Unusual 1920 Formulas
for the Kitchen Chemist*

A THOUSAND AND ONE FORMULAS –
The Laboratory Handbook
for the Experimenter
by Sidney Gernsback
reprinted by Lindsay Publications

Here you get formulas on cements and glues, compositions of all kinds, glass and glass working, inks, leather polishes, metalcraft, perfumes, soaps, photography, blueprint and other papers, plating, pyrotechny, polishes and stains, varnishes and paints, cleaning compounds, woodcraft, chemical lab hints, mechanical lab hints, electrical lab hints, miscellaneous formulas and an appendix.



Not everything here is useful in my opinion, and some of it is downright dangerous. Some of this looks like it came out of the Boy Mechanic books. Learn how to convert coin silver into pure silver, formulas for solders, lithographic ink, how to make a gasoline torch, recipes for killing flies, an experiment with thermit, hand grenades ???, flash-light powder like the old photographers once used, methods to copper-plate carbon motor brushes, and on and on.

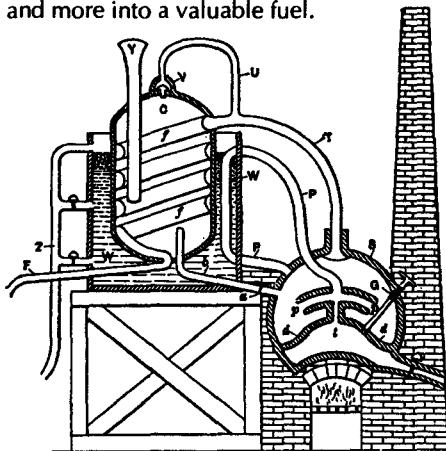
A lot of this is quaint, and not directly useful. It's for kitchen chemists of the 1920's. But a few of the formulas and ideas are worth the entire price of the book. If you're trying to build a master reference library of unusual secret formulas, this book is certainly worth considering. Fun reading if nothing else. Get a copy! 5 1/2 x 8 1/2 softcover 160 pages No. 20811 \$8.50

DISTILLATION OF ALCOHOL AND DE-NATURING

by F. B. Wright

reprinted by Lindsay Publications

You can make industrial alcohol from anything fermentable. Here is one of the very best books you'll ever find on the nitty-gritty details of fermenting grain, fruit, potatoes, and more into a valuable fuel.



Distillation of Alcohol

*Incredible 1907
Alcohol Fuel Manual*

Chapters include alcohol, its forms and sources; preparation of mashes and fermentation; distilling apparatus; modern distilling apparatus; rectification; malting; alcohol from potatoes; alcohol from grain, corn, wheat, rice, and other cereals; alcohol from beets; alcohol from molasses and sugar cane; alcoholometry; distilling plants, their general arrangement and equipment; denatured alcohol, and denaturing formulae; denaturing regulations in the United States (now no doubt obsolete).

You get many, many illustrations of stills, and their equipment. You also get drawings of a potato steamer and crusher, a storage cellar for beets, a roll press for beets, a molasses fermenting house and more. You get recipes and the precise details on mash-ing.

This is fuel, and engines aren't too fussy about the booze they consume. If your goal is to make whiskey, you're on your own. It's against the law.

Great book! Originally copyrighted in 1907. Loaded with detailed how-to. Tremendous reference and source book for survivalists, farmers, Snuffy-Smith-types, chemistry buffs, and the curious. Good stuff. Get a copy.

5 1/2 x 8 1/2 softcover 271 pages

No. 21427

\$14.95

MAKE ALCOHOL!

Powerful homemade fuel!

SECRETS OF BUILDING AN ALCOHOL PRODUCING STILL

by Vince Gingery

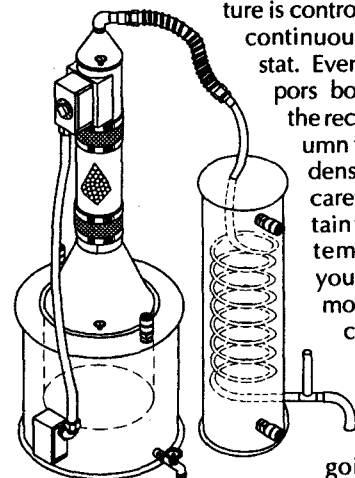
An intelligent person knows that hoarding gasoline is not a solution to fuel shortages. An intelligent person finds alternative solutions, and this machine is just such a solution.

Instead of trying to stockpile gasoline, you can make your own substitute out of sugar, corn, potatoes, or almost anything you can ferment into alcohol. This still will remove the water, creating almost pure alcohol, nearly 200 proof, so you can burn it in just about any type of engine.

Here Vince will teach you how to take common plumbing parts, copper sheeting, and standard electrical parts and build a 6 gallon capacity still. He'll show you how to malt, mash, and ferment corn into fuel and turn it into fuel. And Vince will show you how easy it is to get a license and do all this with the blessing of authorities.

The still heats the wash with a water jacket in which is immersed a 120 volt water heater element. Temperature is controlled with a

continuous thermostat. Eventually vapors boil through the rectifying column to the condenser. If you carefully maintain the precise temperature, you'll get almost pure alcohol.



The fuel you produce is not going to be cheaper than gasoline

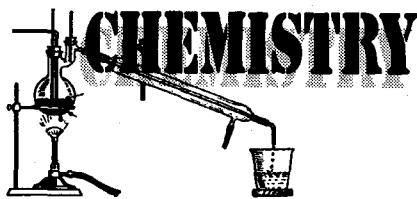
unless you have a low cost source of fermentables and want to make a version you can fire with scrap wood or coal. But if you can't buy gasoline at any price, even alcohol at three or four dollars a gallon is a bargain.

I'm sure you could use the still to make whiskey and brandy. But I'll tell you up front, that's against the law whether you sell it or not. The Feds want their taxes. If you're going to make moonshine, don't tell me about it.

Great book! Be independent. Thumb your nose at the corner gas station. Build a still, and make fuel. Order a copy. 8 1/2 x 11 softcover 76 pages

No. 6060

\$11.95



MANUFACTURE OF WHISKEY, BRANDY & CORDIALS

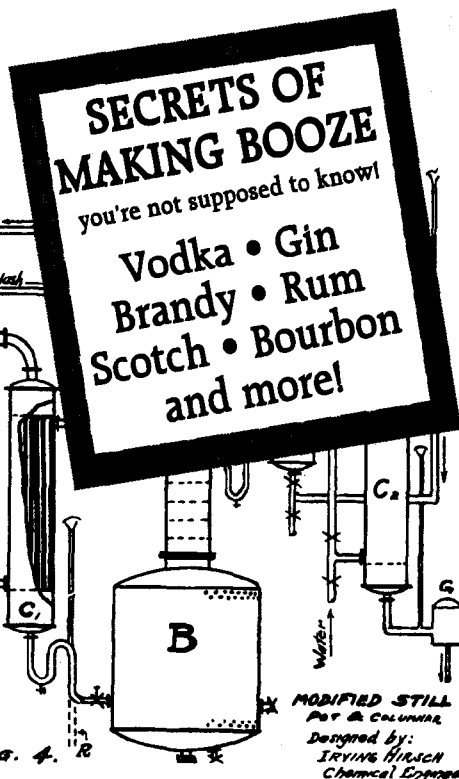
by Irving Hirsch
reprinted by Lindsay Publications Inc

What you get here are the secrets of making good, drinkable booze that you're not supposed to know! In 1937 the author, a chemical engineer, put together this industrial handbook to teach others how to produce hard stuff. I guess there wasn't much to do but drink during the Great Depression.

Chapters include whiskey, treatment of grain, rye whiskey, distillation of liquors, distillery equipment and appliances, manufacture of brandy, of apple-jack, of pear brandy, of slivowitz, of fruit brandy, of rum, of gin, of miscellaneous liquors, of cordials, blending, maturing of spirits [very important], artificial maturing of spirits [trade secrets?], clarifying liquors, water, sugar and syrup, coloring and much more.

We're not talking about small moonshine stills or "white lightning" that tastes like liquid fire. This is good stuff. We're dealing with big stills and big processes the way the pro's did it and are probably still doing it. You get diagrams of many different types of stills, condensers, filters and so on. You get recipes for everything from gin to creme de cocoa. You get useful tips on blending scotch whiskeys, problems that occur if whiskey stays in bond too long, problems with sweating casks and much more.

Although I'll never make my own booze, I found this book interesting because this



Manufacture of Whiskey, Brandy & Cordials

kind of information is never published. It's passed on through apprenticeships. The text is typewritten, and the illustrations are industrial. I get the overpowering feeling that this is information that the government and especially the distilling industry wants to keep to itself.

Excellent, rare information. An interesting book on something that people have enjoyed and gotten into trouble with since the beginning of time. Get a copy and enjoy it. Order a copy today! 5 1/2 x 8 1/2 softcover 183 pages No. 20935

\$9.95

CRYSTALS AND CRYSTAL GROWING

by Holden & Morrison

Crystals exist in everything from your TV set to the castings you pour. Learn about what crystals are and how they grow. Learn how to grow your own, easily and inexpensively.

Chapters include: solids and crystals, solutions, solubility diagrams, two methods for growing crystals, building blocks for crystals, twelve recipes, symmetry, arrangements of atoms, cleaving and gliding crystals, melting

and transforming, piezoelectric effect, optical experiments and more. You also get sources of supplies, making a spectroscope, suggestions for research, more books and articles.

Excellent book. Easy to read and understand. It was first published in 1960, so you know it's a good book. Get a copy. A great science fair project. 5x8 softcover 318 pages No. 546

\$12.95

Secrets of Growing Crystals

PRACTICAL DISTILLER

by Leonard Monzert

reprinted by Lindsay Publications

Make moonshine! Poison yourself! Go blind!

From 1889 comes this little gem of a book showing how to distill "Brandy, Gin, Rum, Whiskey, Arrac, Poteen, etc., all of which owe their respective intoxicating properties to the amount of alcohol which they contain."

While other books show you how to make fuel alcohol, this one will show you the

PRACTICAL DISTILLER

equipment you need to make booze. Included are discussions on the still and appurtenances, the farmer's still, directions for erecting a distillery, running a charge, the doubler, distillation of liquors, rectifying or leaching, alcohol refining, distillation of volatile oils, extracts, the water bath still, essences and liqueurs, blending and compounding and more.

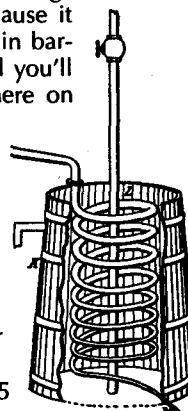
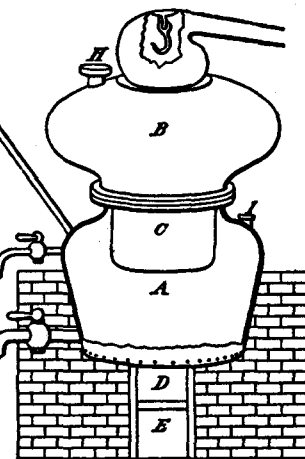
Making booze without a permit is

illegal. The government wants its taxes. You can use the equipment to make fuel alcohol for your car, perfume, and even vinegar.

If you intend to make booze, you're on your own. Moonshine stills were made with galvanized iron, old radiators, and other nasty metal that could poison you. Besides, "white lightning" tastes like lightning because it isn't aged or mellowed in barrels. It's nasty stuff. And you'll find little information here on turning out really good whiskey. This is a book on equipment, not gourmet cooking.

A great curiosity. Rare information. I won't tell the WCTU or BATF you're ordering copy. 5 1/2 x 8 1/2 softcover 156 pages No. 4589

\$8.95





HOW TO MAKE MIRRORS

reprinted by Lindsay Publications

"The Brashear, rochelle salt, and formaldehyde formulas are given, together with a detailed discussion of the precautions which should be taken to avoid danger and the technique which has been found to yield the most satisfactory results at the bureau. Methods are also given for the production of reflecting films on glass by the chemical deposition of copper, platinum, or lead sulphide, by cathode sputtering, and by the condensation of vaporized metals."

MAKE MIRRORS

Be warned that should you mix some of the chemical too strong, there may be a dangerous explosion. But the manual goes into great detail about eliminating the dangers, and the practice of silvering. It is written for the beginner and leaves very little to the imagination. A reprint of a 1931 booklet issued by the Bureau of Standards. Excellent! 5 1/2 x 8 1/2 booklet. 15 pages 2 drawings.

No. 885

\$3.00

LINDSAY'S CHEMICAL CROSS REFERENCE

by Lindsay Publications Inc

If you haven't run into the problem yet, you will. You'll be reading some old chemical formula calling for mirbane oil, salt of satum, or liver of sulphur. A quick check of this handy list of chemical terms would tell you that you need nitrobenzene, lead acetate, or potassium sulphide.

CROSS REFERENCE!

Translate Obsolete Old-Fashioned Chemical Names

What we did was enter into our computer two thousand chemical equivalents gleaned from a variety of chemistry textbooks, industrial references, and formularies in our reference library dating back to the early 1800's. The computer merged and sorted the lists into alphabetical order. The result is a chemical cross reference.

We have kept unusual and probably incorrect spellings. We have made no attempt to verify that the definitions are correct. What we have done is provide you with one master list of the best equivalents we could find. We've already found it useful, and you will too. Get a copy for your reference library. 5 1/2 x 8 1/2 softcover 44 pages No. 20170

\$5.95

CONTENTS

- **Division I** — Chemical Metallurgy; Alloys; and Preparations Made and Obtained from Metals. Iron; Pig or crude iron; Malleable, bar or wrought-iron; Steel; Iron Preparations; Cobalt; Nickel; Copper; Preparations of Copper; Lead; Preparations of Lead; Tin; Preparations of Tin; Bismuth; Zinc; Preparations of Zinc; Cadmium; Antimony; Antimonial Preparations; Arsenic; Quicksilver or Mercury; Preparations of Mercury; Platinum; Silver; Gold; Manganese and its preparations; Permanganate of Potassa; Aluminum; Magnesium; Electro-Metallurgy

- **Division II** — Crude materials and products of chemical industry — Carbonate of Potassa; Saltpeter, Nitrate of Potassa; Nitric acid; Technology of the Explosive Compounds — gunpowder, and the chemistry of fireworks or pyrotechny; Nitroglycerine; Gun-cotton; Common salt; Manufacture of Soda — native soda; Soda from plants or soda-ash; Soda Prepared by Chemical Processes; Preparation of Iodine and Bromine; Sulphur; Sulphurous and Hyposulphurous Acid; Manufacture of Sulphuric Acid; Sulphide of Carbon; Hydrochloric Acid and Glauber's Salt, or Sulphate of Soda; Bleaching Powder and hypochlorites; alkalimetry; Ammonia and ammoniacal salts; Soap making; Boric or boracic acid, and borax; Production of alum, sulphates of alumina, and aluminates; Ultramarine

- **Division III** — Technology of Glass, Ceramic Ware, Gypsum, Lime & Mortar Glass manufacture; Ceramic or earthenware manufacture including hard porcelain, tender porcelain, stoneware, Fayence ware, common pottery, brick and tile making; Lime and lime-burning; Mortar including common or air-setting mortar and hydraulic mortar; gypsum and its preparation

- **Division IV** — Vegetable Fibers and Their Technical Application — Hemp; Cotton; Paper making — hand paper, machine paper, pasteboard and other paper; Starch; Sugar manufacture; Cane Sugar; Beet-root; sugar; Grape sugar; Fermentation; Wine-making; Beer-brewing; preparation or distillation of spirits — preparation of vinous mash and distillation of the vinous mash; Bread baking; Manufacture of vinegar; Preservation of wood; Tobacco; Technology of essential oils and resins; Cements, lutes and putty

- **Division V** — Animal Substances and Their Industrial Application — Woollen industry; Silk; Tanning; Glue Boiling; Manufacture of Phosphorus; Requisites for producing fire; Animal charcoal; Milk; Meat

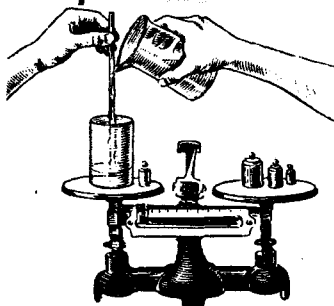
- **Division VI** — Dyeing and Calico Printing — Aniline colours; Carboic Acid colours; Naphthaline pigments; Anthracen pigments; Pigments from Chinchonine; Red Pigments occurring in plants and animals; Blue dye materials; Yellow dyes; Bleaching; Dyeing of spun yarn and woven textile fabrics; Printing of woven fabrics

- **Division VII** — Materials and Apparatus for Producing Artificial Light — Artificial light from candles; Illumination by means of lamps; Gas; Paraffin and solar or petroleum oils; petroleum

- **Division VIII** — Fuel and Heating Apparatus — Fuel; Wood; Peat; Carbonized peat; Brown-coal; Pit coal or coal; Petroleum as fuel; coke; artificial fuel; gaseous fuel; heating apparatus; heating dwelling houses; boiler heating and consumption of smoke

Manual of Formulas

Great Chemical Recipes from 1932!



MANUAL OF FORMULAS, RECIPES, METHODS AND SECRET PROCESSES

edited by Raymond Wailes

reprinted by Lindsay Publications

Here's a great low cost collection of hundreds of formulas on just about every subject you can imagine compiled from the pages of Popular Science Magazine and published in 1932.

You can make soap bubble liquids, solidified gasoline, waterproof matches, lacquer for brass, silver solder, photographic printing paper, slow-drying putty, blackboard paint, thermite welding mixtures, pewter alloy, garden sprays, soaps, preparations for dance floors(?), concrete waterproofing compound, fireworks, cosmetics, adhesives and much more.

You'll learn how to mix up compounds for polishing and plating metal. Learn how to blacken brass, blue steel, to make silver nitrate from old spoons, mix up low temperature alloys, dry flowers, brew wine, re-ink typewriter ribbons, make blueprint paper, dye cloth, make flypaper and much more.

Unlike other formularies, this one is new enough to be useful and old enough to have unusual formulas. And the price is quite reasonable compared with the large volumes which are interesting but often contain many formulas that are of little practical value. An interesting book of definite value. Worth having. Order a copy today. 4 1/2 x 8 softcover 250 pages No. 20366

\$9.95

Chemical Manufacturing Secrets

1872 HANDBOOK! Everything from pig iron and nitric acid to bread and wine!

HANDBOOK OF CHEMICAL
TECHNOLOGY 1872

by Rudolf Wagner

translated by William Crookes

reprinted by Lindsay Publications

In the 1872 German chemists were world famous, and Wagner's Handbook was the master reference for chemists the world over. This translation of the eighth German edition can be yours for much less than an original copy should you be able to find one.

And what a book it is!

You'll early and/or simple ways of making chemicals, refining metal, formulating glue, paper, dyes or just about anything else chemical in nature. I have never seen such a comprehensive collection of incredible technological detail in a single volume anywhere else.

Want to refine iron ore into steel? Want to make sulphuric acid? And use it to make nitric acid? And use it to make explosives? Care to brew beer? How about a batch of whiskey? A loaf of bread? And on, and on, and on. You get a whole encyclopedia in a single volume — 745 pages of small type with 336 illustrations mostly of manufacturing apparatus.

This is not really a cookbook. You won't find step-by-step instructions. But you will find more detail on a wider variety of basic essential processes (many of them made obsolete by more complicated processes) than in any other volume. For instance, if you're investigating the tanning of hides, making illuminating gas, charcoal, soap, or anything else, you'll find that this single volume can provide more information in less time than a search through most libraries for a month of Sundays.

Yes, this is an expensive volume, but you actually get more than what you pay for. This is quality. Today we have sophisticated, hi-tech processes that are closely guarded industrial secrets. Here you learn how it was done before large corporations and PhD chemists took over production. Be warned, though. This is old world thinking. You run the risk of poisoning yourself. These methods can be and probably are dangerous.

This incredible classic text will definitely fill a void in your reference library. I've never seen anything like it. And it's almost a sure thing you haven't either. It's expensive, but it's worth every penny and then some. Order a copy. You won't be disappointed. 5 1/2 x 8 1/2 hardcover 745 pages

332 illustrations

No. 4996

\$29.95

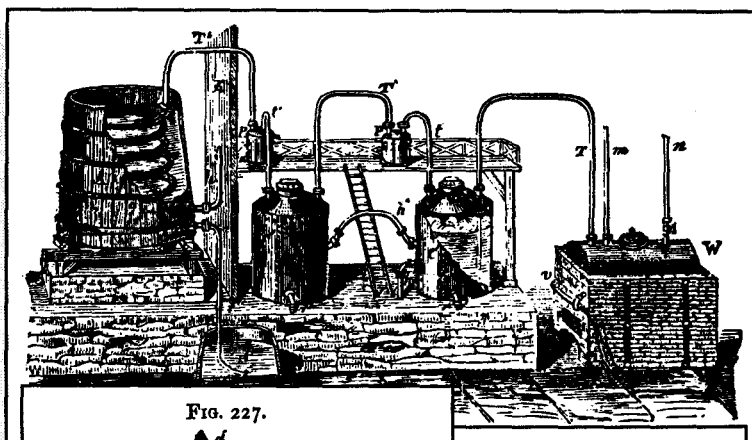


FIG. 227.

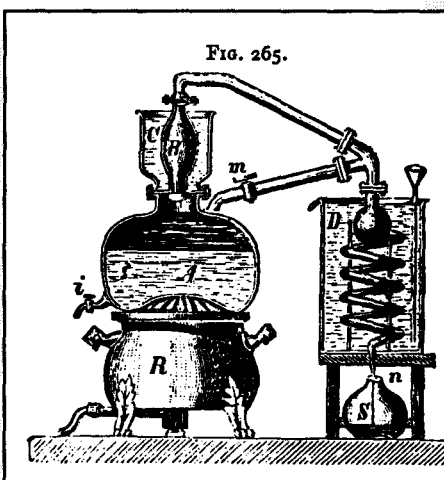
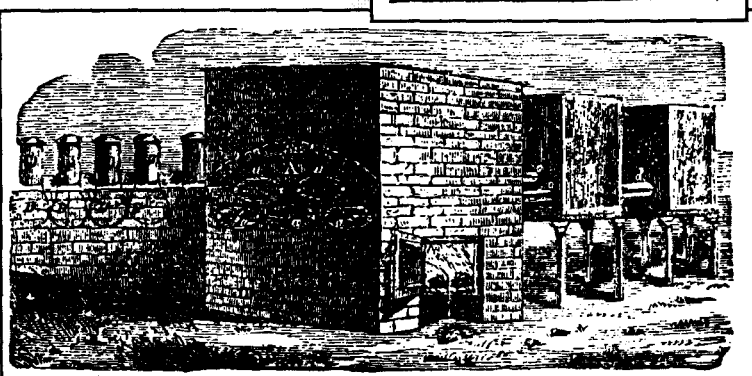
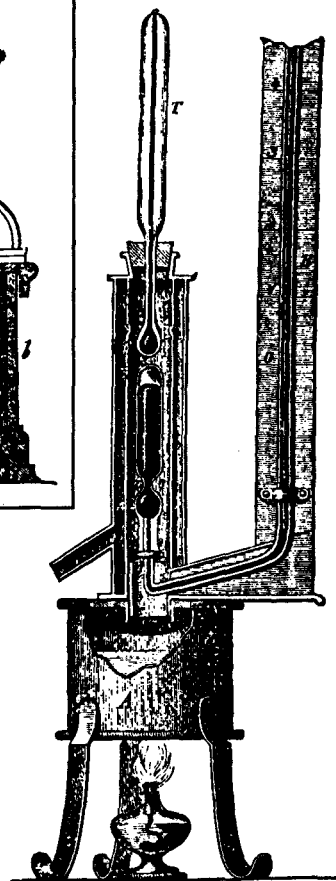
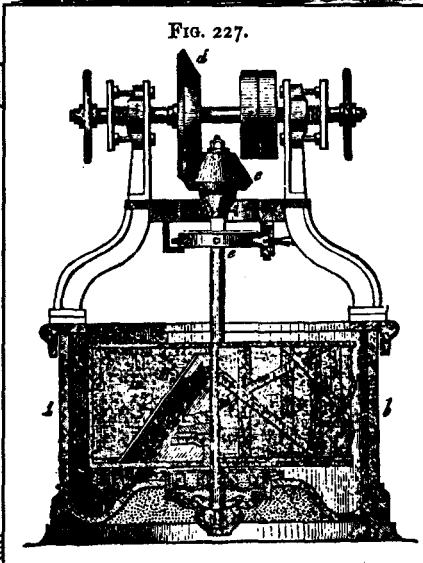
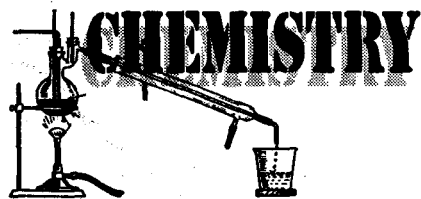


FIG. 265.





VOLUME 1 - ACCIDENTS AND EMERGENCIES, AGRICULTURE, ALLOYS & AMALGAMS

You get nineteen pages on dealing with accidents, poisonings, drownings, and all the "routine" problems of life. I'm not sure I would want to trust their recommendations.

The agriculture section looks quite useful, especially if you're looking to homestead. Make grafting wax, growing mushrooms in an old chest of drawers, make butter and its substitutes, a couple of simple cheeses, and fertilizers for the garden. You get details on milk and its substitutes, preservation and the like. Learn about chickens, their feed, and even remedies for diseases. You get lots of formulas for keeping your livestock healthy including cattle, horses, dogs, and hogs. Finally you get a section on eradicating weeds.

Alloys & Amalgams will, first, provide you with general information about alloys and the metals that go into them. Then you get details on a wide variety of alloys including aluminum bronze, bismuth bronze, copper alloys, German silver, bronze, gun metal, phosphor bronze, speculum metal, bearing metals, brass, gold, manganese, platinum, and silver metals, white metal and more. Amalgams include those using barium, cadmium, copper, gold, silver and lots more. Interesting stuff. More great info. 5 1/2 x 8 1/2 softcover 128 pages
No. 21516 **\$7.95**

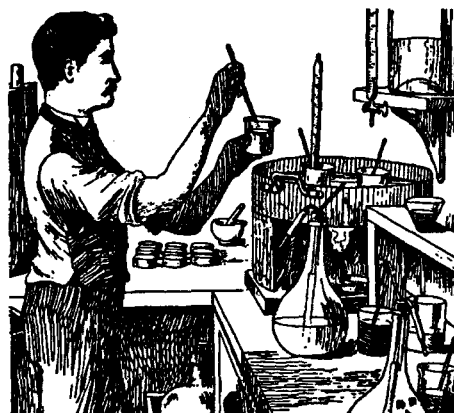
VOLUME 2 - ART & ARTIST'S MATERIALS, BEVERAGES

You get hints, tips and formulas for all kinds of things like ways of bronzing, preparing canvas for painting, mixing pigments, making copying paper, drafting, fixing drawings, making wax flowers, bronze drawing on glass, gilding on granite, backing maps with muslin, making modeling clays and compounds, making molds for metal casting, papier mache (including industrial uses), making real parchment papers, picture framing, plaster casting, and much more.

Then you get all kinds of formulas and recipes for various mineral waters, and page after page of flavorings, extracts, and syrups for making soda pop. Make dandelion root beer, hop beer, egg drinks, Frappes, ginger ales, and more. Then you get details on grape juice, ice cream beverages, malted milk, phosphates, and punches. Hot beverages include a beef drink, chicken cream(?), clams(?), coffee extract and more. Try lemonade, cola, tomato juice, cider and much more. Alcoholic beverages include formulas for all types of liqueurs from honest-to-good-

ness, illegal absinthe to Berlin bitters and wild cherry. You get page after page on making brandy and other liqueurs and the mixing of drinks. And then you get page after page of wine know how.

More formulas and recipes than you'll ever have time to try. Get a copy.
5 1/2 x 8 1/2 softcover 144 pages
No. 21524 **\$7.95**



VOLUME 3 - CEMENTS, GLUES, PASTE, CLEANSING, BLEACHING

You can make adhesives for aquariums, barrels, buildings, dental work, glass, for attaching metal to glass or leather, and more. You can make acid proof glues, casein glues, mucilage, putty and much more. You can whip up brewer's cement for coating the inside of barrels, or concoct a glue for setting bristles in paint brushes, or even whip up blood cement for pointing bricks (yes, it contains bullock's blood!). You'll find very unusual old-time sealants and adhesives that worked very well.

Then you get methods of removing acid stains from clothes, of bleaching beeswax, of cleaning brass and copper, of cleaning clocks, carriages, and casks. You can clean feathers, your bird (?), felt hats, firearms, goatskin rugs, iron, steel, and more. You get formulas for preserving ropes, details on rouge for polishing, for polishing nickel, and even for cleaning wicker baskets and violins ('course, cleaning it ain't gonna make it sound any better...)

Unusual stuff to say the least. 5 1/2 x 8 1/2 softcover 161 pages
No. 21478 **\$8.95**

VOLUME 4 - Plating & Coloring Metal

You'll learn about coloring metals like aluminum, copper, brass, iron and steel and more. You can bronze or frost brass, blue steel or turn it bright black, gild silver or turn it red.

In the section on dyeing you can make

The Scientific American Cyclopedia of Formulas

A total of 15,000 Formulas!

In 1912 Munn & Co. published a enormous books of formulas for almost every imaginable concoction a person might need. Editor Albert A. Hopkins, query editor of the *Scientific American*, compiled this incredible collection 15,000 formulas drawing on, in part, the 28th edition of *Scientific American Cyclopedia of Receipts, Notes and Queries*. The original copyrights run from 1891 through 1910, and the material they cover is brilliant.

I debated for quite some time about reprinting this book. To reprint almost 1100 pages in a single volume would be astronomically expensive and would require a hefty price tag. I don't think you want to put a second mortgage on your house to buy a single book.

The solution was to break the main book into nine volumes. You can order a complete set at a discount price, or buy just the topics you're interested in. Breaking it into pieces makes it easier for everyone to get access to this information.

SET OF ALL NINE VOLUMES

Special price for a set of all nine volumes.
Save \$6.95.
No. 940 **\$62.70**

SPECIAL VOLUME 8 PRICE

If you have purchased the other eight volumes of the Cyclopedia of Formulas as they have appeared, you can purchase volume eight at this special price to complete your set. (No cheating, though! Before we will send you volume eight at this price, however, we will check our computer records to see that all other eight have been ordered.)

No. 941 **\$1.00**

Easter egg dyes, dye feathers, hats, gloves, gutta percha, horsehair, straw and more with dozens of formulas.

Learn to electroplate. You get the details on cleaning, pickling, polishing and actual plating. You get many formulas for plating aluminum onto copper, putting down brass and bronze on base metals, plating copper and gold, depositing iron, nickel, platinum, palladium, and so on.

Learn to blow glass, cut, drill, etch, frost, gild, and grind glass. Excellent info on making mirrors. More.

Good stuff. 5 1/2 x 8 1/2 softcover 76 pages
No. 21338 **\$5.95**



VOLUME 5 - METAL, CANDY, LAPIDARY, LUBRICANTS, ICE CREAM, MORE!

You start out with heat treatment of metals, annealing, brazing, casehardening, hardening, tempering and welding. There are recipes and formulas for hardening iron with the prussiate of potash process, hardening copper, directions for making drills for glass from steel wire, tempering and much, much more.

You can make antiseptic wash for washing your bird, formulate bird seed, waterproof cellars, compound fumigants, color electric light bulbs, clean and refinish wooden floors, hang wallpaper and much more.

You get formulas for making a variety of chicle-based chewing gums, candies such as gum drops, rose almonds, Italian cream caramels, and more. You get recipes for several ice cream bases and a number of flavoring additives including unusual ones such as black currant, huckleberry, and pomegranate. You'll learn to make fruit ice, sherbets, and frozen fruits.

Then you can make poisons! You can with a chapter on insecticides and extermination of vermin: domestic, agricultural, and horticultural.

Learn "artificing in hard minerals, ivory, bone, horn, shell, coral, jet, meerschaum, soft minerals, etc." In other words, you can make jewelry and other pretty things.

Next, you'll learn how to tan leather, preserve it, and polish it by using a variety of useful formulas.

Finally, you'll learn to formulate lubricants. You can grease up your buggy wheels, make sewing machine oil, make palm oil grease for wooden machinery, or use paraffine to make piston-rod grease. And lots more.

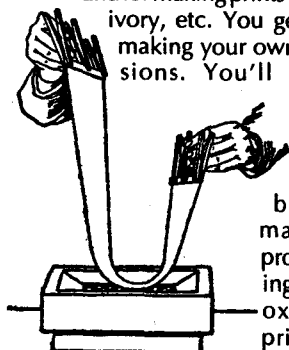
More useful formulas. 5 1/2 x 8 1/2 softcover 113 pages
No. 21435 \$7.95

VOLUME 6 - PAINTS, VARNISH, PHOTOGRAPHY

These formulas cover the areas of bronzing, driers, enamel paints, fillers, japans and japanning, lacquers and lacquering, paints, size, stains, varnishes, and whitewash. Make your own lacquer paint, blackboard paint, boiler paint, engine paint, iron paint, rubber paint, silicate paint and more. You can make size, stains, balloon paint, coffin varnish, violin varnish and more.

Learn how to make collodion wet-plates like Brady used to photograph Lincoln and Civil War. You get formulas for developers, hardeners, fixers, intensifiers, varnishes and more. You get formulas and very brief in-

structions for making prints using plain salted paper, arrowroot papers, albumen paper, and for making prints on cloth, wood, ivory, etc. You get formulas for making your own gelatin emulsions. You'll find info on



Coating the Paper

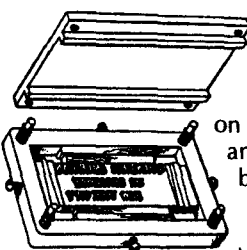
cyanotype processes, platinum, carbon, Ozone, and many unusual processes including lead printing, oxalate silver printing papers, citrate paper, uranium process, and

more. One section covers lantern slides, color photography, photoengraving, and even old-time flashlight powder (I don't want to be around when you set that off!).

Rare information. Some of it I've seen nowhere else. Grab it! 5 1/2 x 8 1/2 softcover 112 pages
No. 21486 \$7.95

VOLUME 7 - PRESERVING, RUBBER, SOAP, CANDLES, SOLDERING, MORE

Can and preserve fruit. Recipes for blueberries, cherries, crab apples, currants, grapes and more. Make jam and jelly of all types. Make brandied fruits, pickles, catsups. (Anchovy catsup, chutney mango, pickled cherries, and more!) Pickle melons, bottle horseradish, can vegetables for the off season. Preserve eggs, meat, smoke eels and salmon. Make many kinds of mustard, prepare spices and seasonings, sauces, salad dressings and puddings. Make and clarify vinegar — many



formulas. Make baking powder, malted food for infants, yeast, more.

Get the details on rubber, gutta percha and celluloid. Make billiard balls(??), imitation tortoiseshell, artificial rubber, rubber preservatives, vulcanizing and much more.

Formulas for candles. Make one of dozens of different soaps from castile to medicinal and beyond.

Get alloy formulas for all types of solders. Hints and tips.

5 1/2 x 8 1/2 softcover 101 pages
No. 21346 \$7.50

VOLUME 8 - TOILET PREPARATIONS, WATER AND FIREPROOFING, WRITING MATERIALS AND MISCELLANEOUS FORMULAS

Learn how to make all kinds of old time cosmetics and remedies. Learn to formulate emollient baths, cures for corns, chapped

skin, a variety of cold creams containing all kinds of compounds, depilatories, bleaches and dyes for hair, lip balm, a Listerine-like mouth wash, and more. You'll probably want to do more research before you use some of these mixtures, but I'll bet you find that many modern skin creams guaranteed to keep you wrinkle-free are no better than these formulas.

Learn to extract and prepare perfumes and colognes from a variety of plants. Make potpourri, smelling salts, pomades, deodorants, rouge, shaving cream, and compounds to remove tattoos. Compound theatrical paints, toothpowders and pastes, and even a "wrinkle remover."

Learn how to fireproof tent canvas, roofing, paper and ink, fabrics, wood and much more. Learn to make "hand grenade" fire extinguishers, and more. Waterproof canvas, and other fabrics, floors, leather, paper, umbrellas, wood and more.

You can make crayons, a hektograph duplicating machine, blotting paper, aniline inks, inks of various colors, inks for glass, indelible ink, India ink, mimeograph ink, stamp pad ink, and much more. Make carbon paper, iridescent paper, packing paper, and more. Learn the secrets of making graphite leads for pencils, sealing wax, and artificial slate.

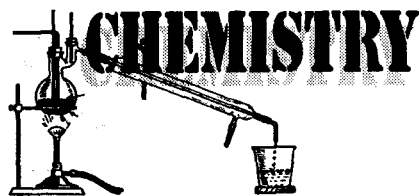
And the final miscellaneous section will give you formulas not found elsewhere on extracting albumen, malting grain, making nitric acid, bichromate batteries, benzene, and billiard ball material. There are details on enamel colors, embalming fluids, etching metal, fish bait, foundry facing sand, kerosene, lard, matches, mica, paraffine, plaster, fireworks, printing roller compositions, Seidlitz, burnt steel, taidexmy and much, much more. Great stuff. 5 1/2 x 8 1/2 softcover 141 pages
No. 21575 \$7.95

VOLUME 9 - LABORATORY DETAILS

You get explanations, and in some cases illustrations, of laboratory operations which are broken into six categories: comminution, solution and extraction, vaporization, precipitation and separation, heat treatment of solids, and specific gravity. These are brief explanations of manipulations needed to compound the thousands formulas in the preceding eight volumes.

You'll learn about maceration, expression, infusion, evaporating dishes, drying closets, distillation, precipitation, filtration, and much, much more. Unlike the rest of the Cyclopedia, this section is well illustrated and that makes it even more fun to read.

You also get a section on essential weights, measures and equivalents as well as the master index to all of the volumes. Excellent, practical lab know-how. Interesting reading. Something to have. 5 1/2 x 8 1/2 softcover 100 pages
No. 21249 \$7.50



HISTORY OF EI DUPONT DE NEMOURS POWDER COMPANY

by Banker & Investor Magazine
reprinted by Lindsay Publications

The duPonts made their fortune making gunpowder for the U.S. government. Both duPonts came to the U.S. in 1800, and were asked to set up the first high-quality powder factory in the new country. The duPonts earned a fortune their first year!

This 1912 history of the company covers the problems of powder and its manufacture, the plants they built, and the history of explosives in general, including mention of a nitroglycerin factory in Glasgow turning out 50 million pounds of nitro each year!

You get pictures of the ruins of the first



DUPONT GOT RICH MAKING EXPLOSIVES!

powder mill, a letter from Thomas Jefferson, their early salt-peter refinery, men wheeling carts of nitro, the acid plant at Louviers CO, experimental black powder press house, experimental equipment for purification of nitro, and much more.

Part history, part technology, and part advertising. Interesting stuff! Get a copy! 5 1/2 x 8 1/2 softcover 224 pages
No. 20579

\$9.95

Hercules Dynamite on the Farm DITCH BLASTING

by Hercules Powder Company
reprinted by
Lindsay Publications

Learn about the selection of explosives and blasting supplies, about Hercules products of 1934 such as Hercotol, Hercules Ditching Dynamite, Extra Low Freezing Dynamite, Hercomites 2 to 7, blasting caps, safety fuses, and blasting machines — you know, the T-handle device

used to detonate the charge. You may want to have a Ohmmeter-Galvanometer, a rheostat, leading wire, cap crimping pliers with fuse cutter, and other equipment.



Dynamite a Ditch!

Chapters include priming methods, lighting fuse, hangfire and misfires, how to handle frozen dynamite, storage of explosives, transportation of explosives, safety, and of course, the last half of the book concerns itself with laying out and blasting ditches.

Make yourself a moat! Keep the neighbors awake

at night! If you intend to blast, stay away from me. Interesting reading!

5 1/2 x 8 1/2 softcover 64 pages

No. 20480

\$4.95

Dynamite Your Way To Pay Dirt!

EXPLOSIVES FOR SHALE AND CLAY BLASTING

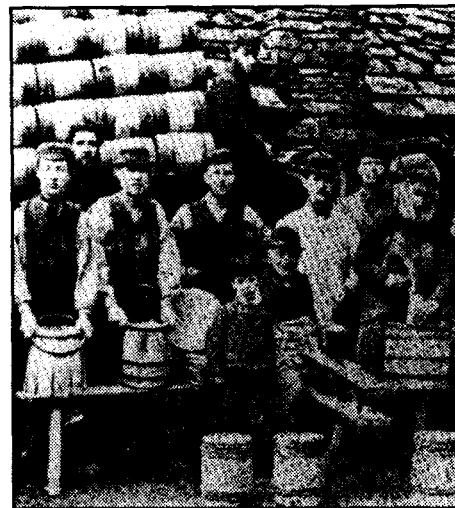
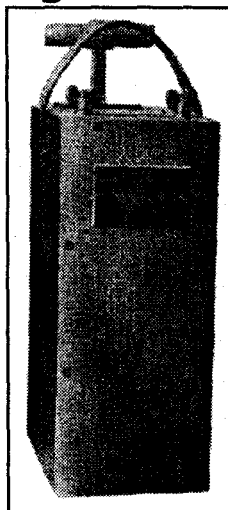
by E. I. Du Pont de Nemours
reprinted by Lindsay Publications

In 1916 DuPont published this booklet to entice people to use their dynamite to clear the land of stumps and boulders so you could mine shale and clay. You get info on digging plastic clays, mining flint clays, draining clay pits, and brief info on changing the course of a stream. The last part of the booklet goes into explosives and blasting supplies. You get details on old time dynamite, blasting caps, safety fuse, cap crimpers, T-handle blasting machines (including an internal view), leading, wire, rheostats, etc. The last couple of pages will tell you how to dig post holes with dynamite and how to handle a misfire.

Interesting. You could probably get enough info to build a replica of a blasting machine and dynamite sticks to scare the hell out of door to door salesmen! (Just don't take it to the airport. You'll do time...) An old book, but dynamite is still dynamite. Unusual. 5 1/2 x 8 1/2 booklet 48 pages

No. 21257

\$4.95

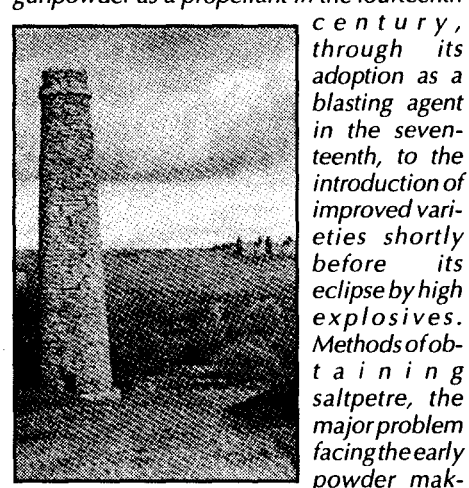


GUNPOWDER!

THE GUNPOWDER INDUSTRY

by Glenys Crocker
Shire Series No. 160

"This book outlines... the development of gunpowder as a propellant in the fourteenth

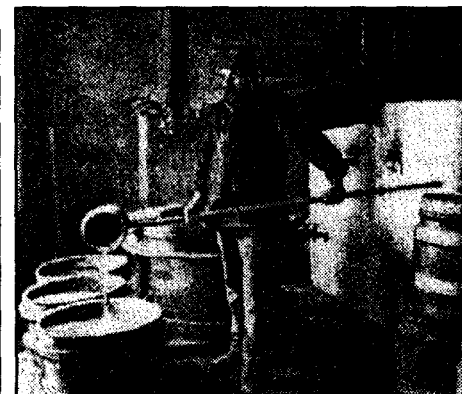


century, through its adoption as a blasting agent in the seventeenth, to the introduction of improved varieties shortly before its eclipse by high explosives. Methods of obtaining saltpetre, the major problem facing the early powder makers,

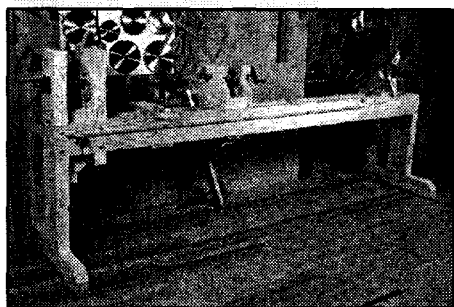
are described together with the various stages of processing and combining the ingredients and producing the final black powder...."

You get many unusual views of British gunpowder works that I've seen nowhere else. Get a copy. 5 1/2 x 8 booklet 32 pages
No. 5019

\$4.25



ARTS & CRAFTS



Wood Turning Techniques



LATHES AND TURNING TECHNIQUES

by the editors of
Fine Woodworking Magazine

Great articles reprinted from the magazine. Color photos throughout. Great info!

I counted 36 articles with titles like: production tips from an architectural turner, tool rests and turning tactics, boatbuilder's bowls, turning large vessels, lathe duplicators, efficient spindle turning, the Old Schwamb Mill, Vermont Turning School, chasing large wooden threads, economy lathes, heavy-weight lathes, the bowl gouge, woodturning chisels, chucks for woodturning, backyard timber, and much more.

A couple of articles of interest are those that will show you how to build a woodturning lathe: a beer-box lathe and shopmade lathes (a big one!). You really don't have to sell the kids to the gypsies to raise the money to buy a lathe. You can build one. Fascinating ideas from people who have done it.

Great how-to. Fun reading. More ideas than you can try in a month of Sundays. Get a copy. 9x12 softcover 127 pages
No. 5006 \$14.95

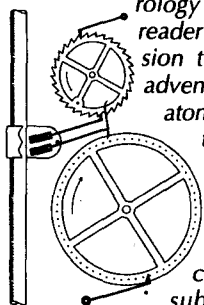
Confessions of a Rabid Clock Builder!

MY OWN RIGHT TIME

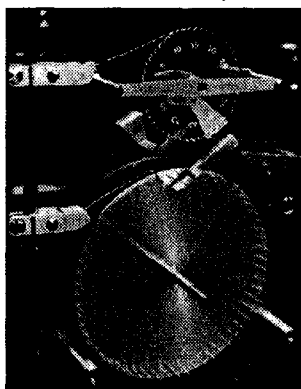
An Exploration of Clockwork Design

by Philip Woodward

"The pendulum is a constant source of interest to scientists. Great and well-known inventors such as Galileo, Huygens, and Kelvin all devised mechanisms to maintain its even oscillations. Others such as John Harrison, Lord Grimthorpe, and William Shortt are known only in horological circles cut contributed as much or more over three centuries. By writing a personal account of his own inventions and achievements in horology the author involves the reader in the history of precision time-keeping before the advent of quartz crystals and atomic clocks. Escapements, the mechanisms that drive pendulums, are a delight to the geometrical mind as well as the delicate and subtle challenge to the mechanical engineer. In their most refined form pendulum clocks not only keep astonishingly accurate time but are also sensitive enough to detect the ebb and flow of tides and even the ceaseless quivering of the Earth itself."



This is an absolutely fascinating book about one precision machinist's quest for more and more accuracy from pendulum clocks. You have



just got to see some of his escapements and gearless clocks!

Chapters include a horologist in the making, theory and practice, choosing an escapement, echoes of Hope-Jones, Harrison and Congreve, silence for a cellist, going without gears, disturbed harmonic motion, the phase circle, the Shortt free pendulum, aiming too high, W5, error correction, noise modulation, the enigma of flicker noise, Wallman's conjecture and clockwork with a difference.

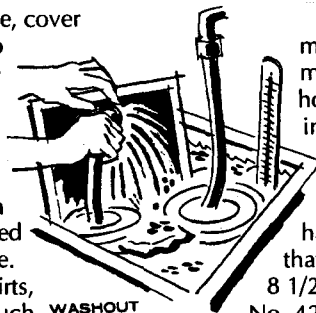
Woodward is an engineer, physicist and mathematician. And what a book he has created! What clocks! I've never built a clock, but after reading this, I'm fired up to start. Get a copy and see what you think. It's British and expensive, but what beautiful machines this book reveals! Well illustrated.

COMPLETE BOOK OF SILKSCREEN PRINTING PRODUCTION

by J. I. Biegeleisen

Take an old picture frame, cover it with cloth, glue a stencil to it, and you have a primitive silkscreen. You lay it on paper, cardboard, or a tee-shirt, put thick ink on the other side and use a squeegee to force the ink through the stencil. You've printed your design. It's that simple.

You can print signs, shirts, decals, wallpaper and much



more without expensive equipment. This book will show you how to do everything from building the simple frame to multi-color printing.

Silkscreen is versatile and low cost. It's a skill you should have. Here's a dirt cheap book that will show you how. 5 1/2 x 8 1/2 softcover 253 pages illustrated

No. 424 \$5.95

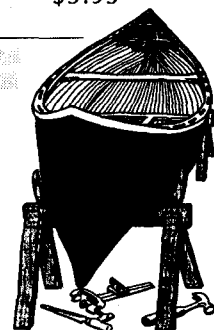
Build a Wood Strip Canoe!

BUILDING A WOOD STRIP CANOE

Build a fiberglass-covered wood strip canoe. You get sources for wood, fiberglass, other plans, materials and how-to. The 14 foot 46 pound prototype was designed for easy access to lakes for fishing

and exploring. Definitely not for white water racing or touring. Rocks can reduce this to kindling. If you're rethinking about building a canoe, start here. 5 1/2 x 8 1/2 booklet 32 pages

No. 2022 \$2.95



ARTS & CRAFTS

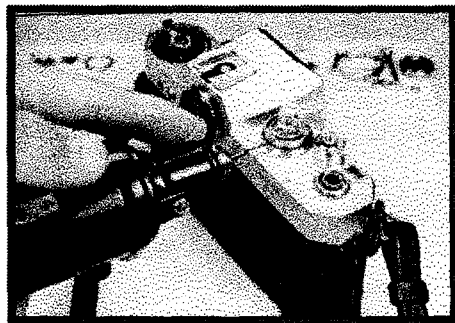
CAMERA MAINTENANCE & REPAIR

by Thomas Tomosy

Cameras are complex devices but many, many problems can be solved quite simply. This book won't necessarily put you in the camera repair business, but you WILL be able to make many repairs.

Chapters include how to use this book, what you will need, important rules and precautions, shortcuts, dos & don'ts, design considerations and characteristics, mechanical cleaning and lubrication, optical cleaning, cosmetic cleaning (exterior face lift), general disassembly and repair methods, accessories and how to maintain them, testing camera functions without instruments, simple diagnostic tools and methods, test instruments you can build, where to find parts and supplies.

Part two will take you through 31 different cameras including the Olympus OM-1, Pentax Spotmatic, Kodak Stereo, Canon AE-1, and even a Hasselblad. In addition parts three and four will give you additional hints on other cameras, tips, charts, and reference material.



Repair Cameras!

written by a European trained master camera technician

Once in the military in Germany I bought a bunch of old cameras for 25¢ each from a scavenger at the local city dump. The shutters didn't work, at least, until I dismantled, cleaned, and lubricated them. I've taken far better pictures with my 25¢ wonders than most people will ever hope to take with even the most expensive camera.

Used cameras are all over the place. Pick one up for a song, repair it, and use it (or give it to some creative kid as a gift...). You can't possibly become an expert with just this book. But it will get you started, and I think you might be surprised at the results you get. 8 1/2 x 11 softcover 172 pages

No. 5012

\$24.95

Build a View Camera!

BUILD YOUR OWN VIEW CAMERA

by Bert West

This is a small book, self-published, with a hefty price tag. But what you get is rare information. You'll be shown how to build a working view camera. (If you haven't gotten beyond an autofocus 35mm camera, I had better explain that a view camera is that "old-fashioned" camera with the bellows that have been and still are used by the masters of photography. They're not really old-fashioned. They're the best.)

West will teach you how to make the front standard and lens board, all the tricks of fabricating a bellows, the ground glass assembly, the main support rail, and the other smaller components. He'll also show you (very briefly) why a view camera is so much more powerful than a handheld camera.

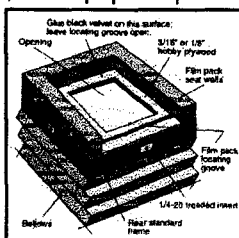
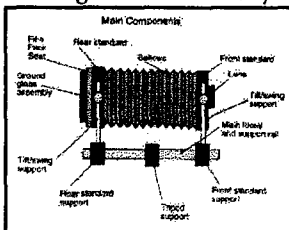
You'll still have to buy a lens, but you can get one fairly cheaply to get started. Some of Ansel Adam's finest, most popular photos were taken years ago with lenses that now sell inexpensively on the used market. You'll also need cut film holders. West suggests sources of supply.

The only really critical part of building the camera is getting the ground glass mechanism precisely aligned. But West shows that even this operation is not that difficult. You don't need to be a technical wizard to produce a quality working view camera for a fractional of the cost of new unit.

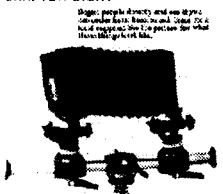
You get lots of photos and drawings. A word of advice: I've seen similar books on unusual topics come on the market sell for a while and then disappear because demand was not strong enough to print more. This might be one of them. It's here today, but will it be in five years? Not a bad book. And certainly not a bad camera. Get a copy, and start building. 5 1/2 x 8 1/2 softcover 112 pages

No. 5020

\$19.95



CHAPTER EIGHT



There are many ways to make a mask. The most common is to use a plaster of Paris mold. This is done by making a mold of the person's face and then pouring the plaster into it. The plaster will set and form a negative of the person's face. This negative can then be used to make a positive mask.

Make Masks!

Casting, Work Metal & Leather

THE PROP BUILDER'S MASK-MAKING HANDBOOK

by Thurston James

Making masks can be a lot of fun. You'll learn valuable lessons in working with materials that should be applicable to other projects. This is one of the three great books by the author of *The Prop Builder's Molding and Casting Handbook*.



The basic sections include masks and persona, early man and his masks, life masks, the neutral mask, character masks, leather masks and the commedia dell'arte, mask-making workshop in Padua Italy, making a mask in leather, other leather-working techniques, and appendix.

Discover how to make an alginate life mask of that favorite person in your life (other than your dog or bartender). Make positive and negative molds, and make a positive plaster copy of the life mask.

Make a plaster negative mold from an original mask design and use it to make paper mache, latex rubber, neoprene or "friendly" plastic positives. You can make a positive gypsum cement mold. And you'll learn how to create a positive mold by vacuum-forming, thermoplastic orthopaedic tape, celastic, and glue cloth. You'll also learn how to decorate the mask with fabric, animal fur, and how to simulate a metal finish.

The second half of the book will show you in detail how to work leather into incredibly beautiful masks. You get all the details on tanning, molds, tools, making splices, finishing, coloring and more. These are works of art - something to be proud of.

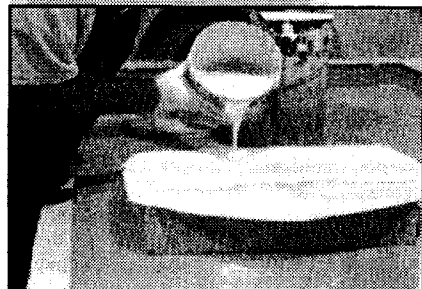
You'll learn how to turn sheet metal into a beautiful mask with chasing and repousse. Then you'll learn the techniques involved in producing fantastic halloween masks. You'll learn skills and secrets. You may be able to make big bucks since masks are popular decorating items. Who knows?

Excellent book. Wall to wall how-to. Heavily illustrated. A book definitely worth having. Get one! 8 1/2 x 11 softcover 203 pages

No. 1340

\$19.95

ARTS & CRAFTS



Cast Almost Everything But Metal! Incredible Secrets!

The Prop Builder's MOLDING & CASTING HANDBOOK

by Thurston James

Try this! Take a dead carp and make a couple two-part plaster molds before it starts to decompose. Then make urethane castings with the molds. These are the techniques that Hollywood uses to make props for movies.

This is a great book all about making molds and casts for theatrical uses. You'll learn about one- and two-part plaster molds, a two-part mold using the shim method, molds from dental alginate and moulage, and a variety of molds using latex rubber, Silicone RTV rubber, injected Silicone molds and more.

You'll learn what type of release compound to use for each combination of mold and casting material.

Then you'll learn how to do absorption casting with latex and neoprene casting rubber. You can make papier-mache, Celastic and fiberglass casts. You can cast with hot melts such as wax, machinable wax, hot plasticine, hot melt glue, and hot melt rubber. You

can make fake "glass" bottles to break over people's heads, or panes of glass to safely throw people through during a barroom brawl (or the Christmas family get together). You might want to cast with polyester resins, urethane foam, plastic wood, Durham's Rock Hard and more.

Then there is a whole section on vacuum forming with thermoplastics using a large, high-performance, home-made vacuum forming machine. You can watch as artists reproduce railings, cornice molding and eventile roofs in lightweight plastic sheeting. It's quite impressive. And the whole book shows you how you can do it, too.

Wall-to-wall photos. Detailed how-to. Hints, tips and secrets. This is a book on casting practically everything EXCEPT metal. Rare information. I think you'll really like it. You get your money's worth, and then some in my opinion. 8 1/2 x 11 softcover 236 pages No. 1328 \$19.95

Daniel Smith Catalog

One fantastic source for artists supplies - paper, ink, watercolor, oil, easels, frames, etc etc-is Daniel Smith, PO Box 84268, Seattle WA 98124-5568. The big reference

catalog is \$5.00. The service is great and the products are top rate. If you're an artists, want to be, or know someone who is, this is something to look into.

Theater Props Handbook! Unusual How-To! Bizarre projects!

THEATER PROPS HANDBOOK

by Thurston James

If you liked Prop Builder's Molding and Casting Handbook, you'll like this too. You can build all kinds of off-the-wall props for the theater, for your next Halloween display, or just to stash in the closet and scare the hell out of your mother-in-law next time she visits.

You can start simple and build a scarecrow, and owl, a barbecued lamb on a spit, simulated arrowheads and pots, simulated barbwire, artificial blood, a slimy heart, a knife that drips blood, and more.

You'll see epoxy putty and ethafoam used to make swords, smoking pipes, and furniture. See a phony butterchurn being made. Learn how they bent PVC pipe to make a shepherd's crook. Urethane foam was used to make a "raygun" for a space man and a full-scale dog. This foam is also seen chunked in a lathe and drill press to make eggs, balisters and a beehive.

You'll learn sewing secrets, how they made a phony beer can label, and old wine jugs. You learn about using and dimming low-voltage lights in order to get desired effects. Make a pair of make-believe binoculars for the stage. Make a pair of "Granny Glasses". See how to use plastic sheet to simulate a fire (just like "Pirates of the Caribbean").

You get lots more than I can describe here. James will show you how fake food is made, how to make low-cost footlights, the secrets of adhesives, building a fake gramophone, making ice-cubes out of Plexiglass, and more. Other topics include bushes and foliage, rehearsal furniture, supplying running water, stage money, simulating stained glass, creating textures such as distressing wood, weapons, writing materials and sources.

The author covers so many unusual how-to techniques in such a short space, you're obviously not going to get extremely detailed how-to. But you DO get enough information that if you have any imagination and are handy at all, you take it from there.

Fascinating book of unusual skills. Heavily illustrated. Just plain fun. Expensive? I think it's very reasonably priced considering the secrets revealed.

I think I'll make a replica of a dead cow and throw it on my lawn. That should keep the rich old biddies who drive by talking for months to come! (Then I'll make a replica of a read rich old biddy and put IT on the lawn!)

Get a copy. Use your imagination. And, above all, be ornery!
8 1/2 x 11 softcover 272 pages No. 1383

\$19.95

ARTS & CRAFTS

THINKING WITH A PENCIL

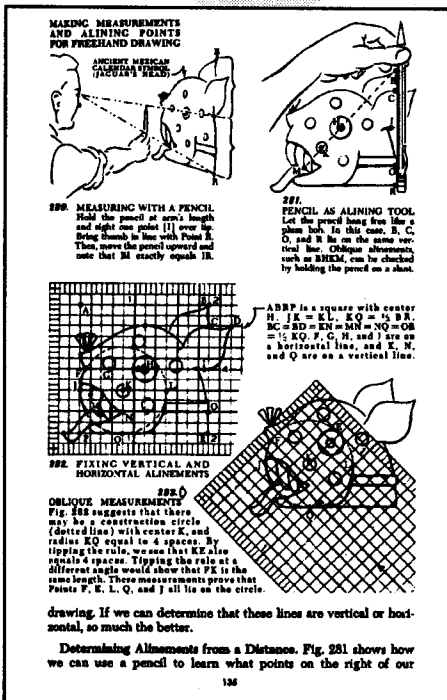
by Henning Nelms

"With 692 illustrations of easy ways to make and use drawings in your work and in your hobbies."

"Originally published in 1957, *Thinking with a Pencil* was one of the very first books to attempt to break through the conceptual barriers between words and images... It explains how to draw for those who want to use it for that purpose, but the real value is in the fresh techniques of using illustration as a thinking tool and as a means of organizing and presenting ideas."

I know some really talented mechanics and machinists who build new machines by trial and error. If they would only take a few minutes and sketch out their ideas, refine them on paper, they'd find that they'd make fewer mistakes and fewer false starts once they got out into the shop. In other words, thinking with a pencil would make them more successful. I've been doing this for years. You should, too.

Think With a Pencil!



Get a copy of this book. It's good. You'll learn everything from sketching, to isometric drawing and more. Master this skill. Order a copy of this classic text today. 6x9 softcover 347 pages No. 6023 \$14.95

Learn to Draw and Paint!

ART HOW-TO BOOKS

If you like to build things, you should try drawing and painting. It's just as creative and the tools are often inexpensive and convenient. How much easier can pencil and paper get?

No, I don't want any excuses about I can't draw. Everyone can draw, many people just can't see. That's no joke. They draw what they know, not what they see. The secret to art is observation and then imagination. If you're reading this catalog, you've probably got more than your fair share of both.

Normal Rockwell took photographs of people and objects. Then projected them onto canvas and traced them. How much drawing skill does that take? And look at the results of Rockwell's efforts!

And real men do paint. Sure, I cook and clean and iron my own shirts. But I also build computers, brew beer, cast metal, process my own photographs AND paint. It can be a joy to pour a glass of white wine, put Thelonus Monk on the stereo on a cold winter's night and paint a watercolor of something you photographed last July.

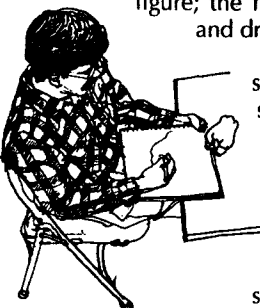
If you don't draw or paint, try it. It's a lot cheaper than buying a computer to tie into the Internet or a 12" engine lathe to build a steam engine. If you find it doesn't appeal to you, you haven't sunk much money into the adventure.

These are great books for beginners that will teach you secrets. Get one, or get them all, and get started. It will enrich your life. It's worth doing.

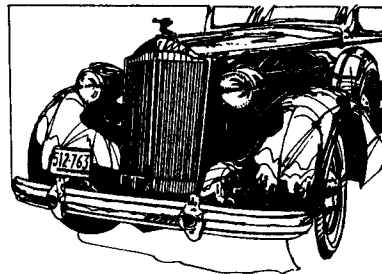
BASIC DRAWING TECHNIQUES

by Albert and Wolf

Chapters include materials; the drawing process; light, shadow and tonal value; sketching outdoors; drawing animals; drawing the figure; the figure sketchbook; and drawing portraits.



You'll learn the secret of drawing: sketching what you see, not what you know. And you'll start by drawing your own feet! Good book. Get one. 8 1/2 x 11 softcover 121 pages



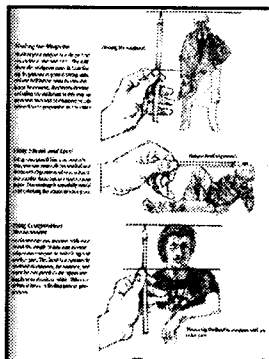
black and white illustrations throughout No. 4000 \$16.95

BASIC FIGURE DRAWING TECHNIQUES

by Greg Albert

Those dirty drawings you drew in high school on the walls of stall five never did look quite right did they? Find out why. Learn to draw people in this book. Including nudes.

Chapters include getting started, gesture, seeing, form, structure, details of the figure, the head, and hands. 8 1/2 x 11 softcover 122 pages black and white illustrations throughout No. 4001 \$16.99



BASIC WATERCOLOR TECHNIQUES

by Albert and Wolf

Watercolor is becoming the most popular painting medium. Materials are low cost and convenient and the colors are radiant and pure. This is my favorite medium.

Chapters include basic materials, technique, using color, design, landscapes, plants & flowers, water, the figure, and the portrait. 8 1/2 x 11 softcover 122 pages lots of color illustrations No. 4002 \$16.99

BASIC OIL PAINTING TECHNIQUES

by Albert and Wolf

This traditional medium requires more equipment and time to complete, but the colors are much deeper than watercolor and you have the luxury of painting over mistakes. It also provides the artist with techniques not found in other media.

Chapters include basic materials, painting techniques, using color, light and shadow, flowers, portraits, landscapes, and seascapes. 8 1/2 x 11 softcover 122 pages lots of color illustrations No. 4003 \$16.95



ARTS & CRAFTS

The Boy Mechanic

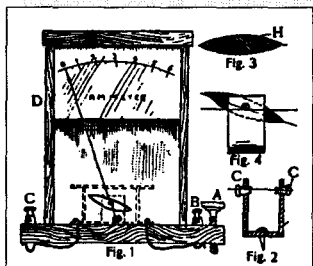
Two jam-packed project books for boys!

Wimshurst machine! An arc light! An electric stove! A toy steam engine! A telegraph key! A water rheostat! An alarm clock chicken feeder! A fiat bottomed boat! An induction coil! A library table! A machine to put paraffin on wire! A pipe fitting steam engine! An electric postcard projector! An ammeter! A paper hot air balloon! A workbench!

You'll find information on imitation arms and armor, magic tricks of all kinds, chair carting, sundials, homemade phonographs, gymnasium equipment, an ice yacht, a pipe fitting lathe, a paper boat, a cross bow, an electric motor, glass blowing and much, much more.

Many people have asked us to reprint the Boy Mechanic. One look through it, and you'll see why. It's a combination of practical projects, not-so-practical projects, crazy ideas, and plain ol' fun nostalgia. 1913 edition. It's a classic book well worth your consideration. Order a copy today!

5 1/2 x 8 1/2 softcover 469 pages
No. 4880 \$18.95



BOY MECHANIC - BOOK 1

compiled by H. H. Windsor
reprinted by Lindsay Publications

"700 Things for Boys to Do. How to construct wireless outfits, boats, camp equipment, aerial gliders, kites, self-propelled vehicles, engines, motors, electrical apparatus, cameras and hundreds of other things which delight every boy."

You get wall-to-wall projects that in most cases are not too detailed, but are more than enough to whet the appetite and make you want to get started. Build a Wright-brothers style glider! A

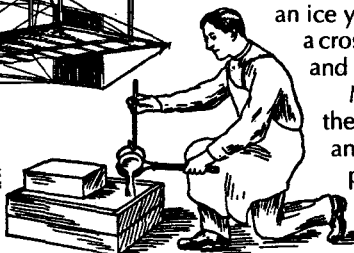
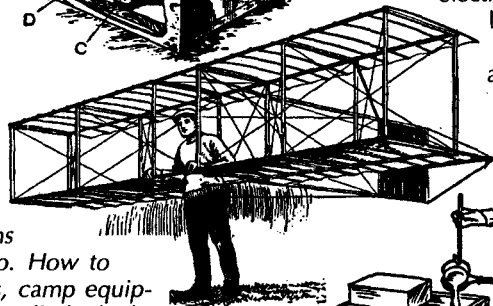
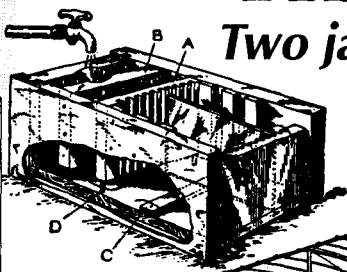


Fig. 4—Pouring the Metal

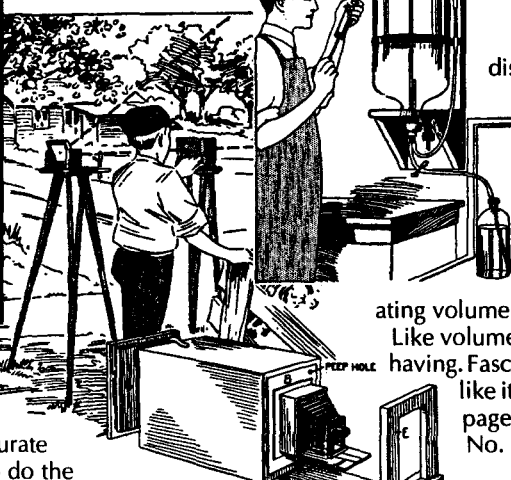
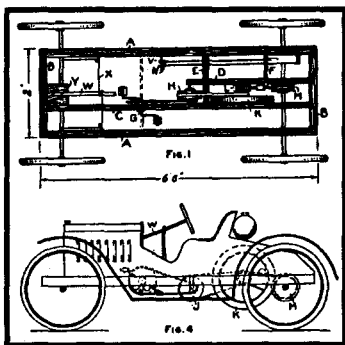
Volume 2

BOY MECHANIC BOOK TWO

reprinted by Lindsay Publications

"1000 things for Boys to Do. How to construct devices for winter sports, motion-picture camera, indoor games, reed furniture, electrical novelties, boats, fishing rods, camps and camp appliances, kites and gliders, pushmobiles, rollercoaster, ferris wheel and hundreds of other things which delight every boy with 995 illustrations."

Learn how to do plane-table surveying and make accurate maps. Once you've mastered that, you'll be shown how to do the same job from carefully taken photographs. Make a four-passenger bobsled, and ice glider, snowshoes, snowball thrower, paddlewheel boat, tandem monoplane glider, movie camera and projector, laboratory gas generator, soap box racer, oil burner for cook stove, combination lock for a drawer, magic tricks, electric score board,



disc-armature motor, and hundreds of other things.

You get wall-to-wall illustrations. You may attempt only two or three projects, but that's okay. You'll have countless hours of fun just browsing through this idea-generating volume from 1915. It's great.

Like volume one, this is a classic worth having. Fascinating! Order a copy. You'll like it. 5 1/2 x 8 1/2 softcover 473 pages
No. 20676 \$18.95

SPECIAL HARDCOVER EDITION VOL 2

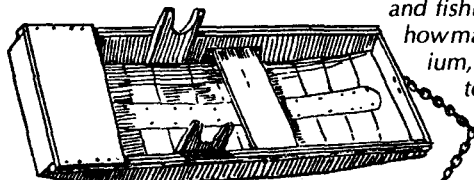
No. 20684 \$29.95

AMERICAN BOYS HANDY BOOK

by D. C. Beard

"If Huckleberry Finn were to settle down, somewhere out there in the territory, and decide to become an author, he might very well come up with a book like this one..." — Washington Post Book World

"The Handy Book was the perfect survival manual. It contained plans for 16 kinds of kites and hot-air balloons and fishing tackle. It told you how make and stock an aquarium, to construct a water telescope and how to camp out without a tent. Or in a hut made from pine



American Boys Handy Book! 1882 Classic!

boughs. How to build 10 kinds of boats, including a flatboat with a covered cabin. Ice boats, too. One-person canoes. Bird calls. Squirt guns with astonishing range and authority..." — Henry Kisor, Chicago Sun-Times

As a kid I read an original copy in our small town library. This is a classic book. Get a copy! 5 1/2 x 7 1/2 softcover 441 pages
No. 6034 \$12.95





THE JOY OF JUGGLING

by Dave Finnigan

This is an honest-to-goodness instruction manual that will teach you to juggle. It's small but most entertainers I've seen can't do much more than what's taught here. If you're out to prove to the rest of the neighborhood (or the guys down at the local pool hall) how truly bizarre you are, learn some of this stuff.

This is obviously heavily illustrated (201 drawings) in or-

LEARN TO JUGGLE!

der to teach you clawing, two balls in one hand, juggler's tennis, the see saw, under the leg, behind the back, over the shoulder, english, body bounces, recoveries, running three, ring juggling, club juggling, and much more. You get guidelines from the greats, presentation, novelty routines in the public domain, showmanship and notes about plagiarism should you want to make some money.

Can't say that I've ever seen a book quite like this. Looks good. Get a copy. 5x8 softcover 113 pages

No. 6077 \$5.95

GONE! The *I Love To Fart Cookbook*, No. 675, is no longer printed. We have no copies, damaged or otherwise.

COMPLETE BOOK OF BEER DRINKING GAMES

by Griscom, Rand, Johnston

Now that you're middle-aged and have the money and inclination to acquire a genuine, all-American beer gut, chances are you're too old to remember any of those goofy beer drinking games you and the "guys" used to play down at the bar after college classes. This will refresh your memory.

You get old favorites like Thumper, Whales Tails, and Beer 99. But you also get newer games like Beer Hunter, Slush Fund, and Burnout. Each game is described with com-



Guzzlin' Games!

plete rules, regulations and strategy tips. You also get lots of beer drinking trivia that only fanatic beer hounds could accumulate. Inside the back cover you'll also get a certified barf bag!

I guess I missed out. I never had the IQ to participate. While every one else was choosing sides, I was still in the corner trying to remember how to get the top off the beer bottle (and that was while I was stone sober!).

Get a copy of this totally useless book and lay it on one of your favorite party-animal buddies. Or slip it in with a six-pack as a going-away gift the next time one of your "friends" gets run out of town.

Another great book with no redeeming social value. Get one and suck some malt. 5 1/2 x 8 1/2 softcover 144 pages

No. 783 \$8.95

Hypnotize!

HYPNOTISM & HYPNOTIC SUGGESTION

edited by Neal & Clark



From the year 1900 comes this "scientific treatise on the use and possibilities of hypnotism, suggestion, and allied phenomena by thirty authors." Learn about hypnotism by direct suggestion, how to control people in their waking state, suggestion in trance phenomena, how to hypnotize difficult subjects and much more. Quite an interesting book. Order a copy! 5 1/2 x 8 1/2 260 pages

No. 4627 \$8.95



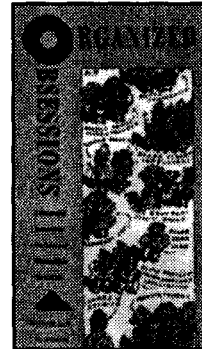
Things That Maybe You Shouldn't Know About

COVERT CULTURE SOURCEBOOK

by Richard Kadrey

Here's your access to a world you may not even know exists. (And after you see this, you may wish you didn't know!)

"Nothing interesting ever happens at the center. Everything interesting is out at the edges. Sparks kick up when opposing edges meet. Sometimes hot edges fuse, creating something wild and new—the birth of a hopeful monster. That's covert culture."



Covert Culture Sourcebook is a guide to the best and weirdest alternative music, books, videos, zines, fashions, software, technology, and "tools for living"; it features commentary, reviews, and descriptions and provides contact names and addresses. It's a starter kit, a sort of treasure map

where X doesn't mark the spot, but a thousand Xs mark a thousand spots.

Listings include techno-feminist manifestos, Australian Aboriginal pop albums, trailers for teen exploitation flicks, toxic waste radiation suits, magazines devoted to body piercing, countersurveillance equipment, smart foods, mail-order sex toys, "brain tuners," cyberpunk novels, and hundreds of other strange, intriguing, and just plain cool artifacts and items...

Explore our underground society! Bizarre! Interesting! This will take courage. If you're one of those frightened people who thinks G. Gordon Liddy will be our next Fuehrer, I don't think you'll like this. But if feel life is a candy store, and you're a kid in that candy store, I'm gonna tell you this is offbeat candy that the proprietor is hiding under the counter. It might appeal to you. Consider it. 6x9 softcover 216 pages

No. 782 \$12.95

Body Play





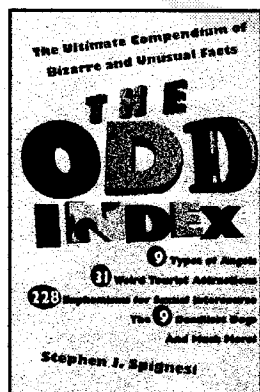
THE ODD INDEX

The Ultimate Compendium of Bizarre and Unusual Facts

by Stephen J Spignesi

Now here is something truly ridiculous and disgusting – something I know you have to have. It's just for fun, especially if you like vulgar humor.

VERY ODD!



From the backcover: "Welcome to the Land of Odd – a place where roosters can tell the future, where people have names like League of Nations and can blow smoke out of their eyeballs. This madcap collection overflows with nearly 10,000 eye-popping, bizarre cultural tidbits – fantastic, far-out, freaky, and funny – all irresistible:

14 ridiculous U.S. sex laws; 11 signs of demonic possession; 16 crucified saviors other than Jesus Christ; 6 odd ways of dying on a farm; 20 secret subliminal messages on records; 6 forms of penis modification; 7 peculiar sexual phobias; 11 plagued places; 39 mega-movie blunders; 73 literary classics initially rejected by the publisher"

You can impress your friends by memorizing 228 euphemisms for sexual intercourse, by knowing the eleven deadliest airline disasters, by knowing in what movie Candice Bergen briefly appeared topless, or in which movie Marlon Brando threw a moon!

You get list after list of useless information. Just what you need to further clutter your hopeless mind. No pictures. I'm going to memorize the eleven steps of embalming a body. (Just might practice on a certain mother-in-law...) 6x9 softcover 399 useless pages

No. 6073

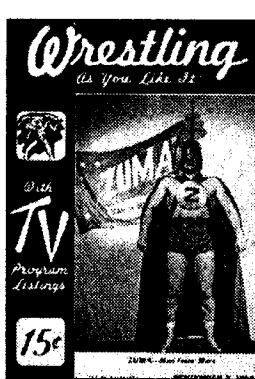
\$12.95

Encyclopedia of Bad Taste!

THE ENCYCLOPEDIA OF BAD TASTE

by Jane & Michael Stern

I know for a fact YOU'LL enjoy this



hilarious, well-illustrated book because you have proven beyond any reasonable doubt that YOU have no taste whatsoever. How do I know? You're reading this catalog....

You get an entertaining and amusing history and illustrations

on every imaginable example of bad taste from accordion music to zoot suits. And if you think you're really a smooth dude, you had better think again. You ain't nothin' fella if you eat Twinkies and Spam, watch your ant farm, think Dolly Parton is a babe, watch professional wrestling from your reclining chair, drive your van to visit a wax museum, collect sno-globes and Hummels, and enjoy heavy metal music.



This is a great book. After all the authors put down (and rightly so) all the good things in life from Barbie dolls, beer and big breasts to Frederick's of Hollywood to Bob Guccione.

Get a copy. Get your feelings hurt. Or give a copy to someone who needs his feelings hurt. Join the rest of us low-class red necks and enjoy life. (If

I can sell enough of these encyclopedias, perhaps I can buy some fuzzy-dice for my rear view mirror and a videotape of Liberace!)

Fun book. Lot's of laughs. Valuable weapon for knocking snooty people down off their pedestals. Order a copy! 9x10 softcover 331 pages

No. 6048

\$20.00

PISSING IN THE SNOW AND OTHER OZARK FOLKTALES

by Vance Randolph

Randolph collected legends and tales of the Ozark people for over forty years, and had much of the material printed in five volumes by Columbia University Press in the mid-1950's. But no one had the guts to print the dirty stories in his collection. The original manuscript was deposited in the National Archives and at Indiana University about 1954. In 1976 the University of Illinois found the courage to put the collection in print.

NEVER EAT YELLOW SNOW!

"As ripe, raunchy and unprintable as honest 'country humor' could possibly be..."

Randolph is absolute tops among America's folklorists."

"For readers who enjoy bawdy humor..."

If you're offended by this type of material, for God's sake DON'T order a copy. (And don't write to complain. Just keep your opinion to yourself on this one.) But if you like a little ribald humor once in a while, this is really funny in places, and quite interesting.

"One time there was two farmers that lived out on the road to Carico. They was always good friends, and Bill's oldest boy had been a-sparking one of Sam's daughters. Everything was going fine till the morning they met down by the creek, and Sam was..."

And on it goes. Each story is several paragraphs long, and most use words you won't find in family newspapers (but you WILL find in movie theaters). The introduction explained, "The Ozark hillfolk seldom tell ribald stories in mixed company, as many city people do. They have their own ideas of propriety, and are often shocked by innocuous urban conversation. The old-timers feel that sexual and scatological topics have no place in casual talk between men and women... Most of the bawdy tales which I have collected were told by adult males when no womenfolk were about... Such stories are not aphrodisiac, or intended to incite antisocial sex activity. They merely evoke laughter."

Crazy book! Dirty stories. Recommended to me by local bankers, lawyers and other professionals with a sense of humor. (If the rest of the community only knew! But maybe they already do....) When you get tired of machining metal, open a beer and have a laugh. Order a copy of this. 5 1/2 x 8 1/2 softcover 153 pages (no illustrations fortunately)

No. 6037

\$6.95

High Voltage!



INVENTIONS, RESEARCHES & WRITINGS OF NIKOLA TESLA

by Thomas Commerford
Martin
reprinted by
Lindsay Publications Inc

The greatest world's fair ever constructed was underway in Chicago in 1893. More electricity and more electric lights were used in the fair than in the entire city of Chicago. It was the electric age, and Edison was doing with commercial battle with Westinghouse and its star, Nikola Tesla.

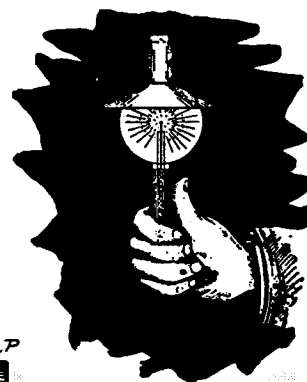
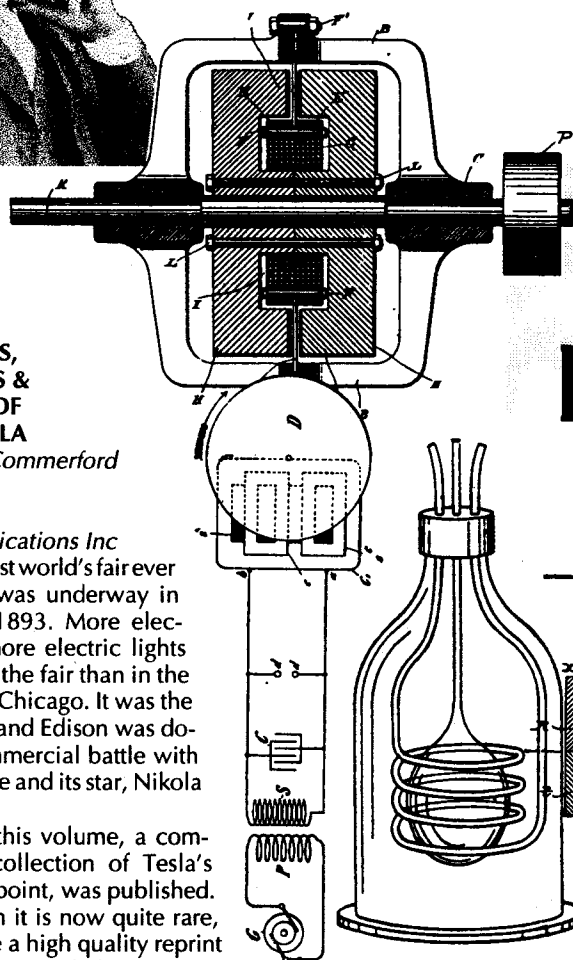
In 1893, this volume, a comprehensive collection of Tesla's work to that point, was published. And although it is now quite rare, you can have a high quality reprint for a small fraction of what cost us to obtain an original copy.

Most people think of lightning generators when they think of Tesla, but that's a very narrow perspective. People should think of alternating current. Tesla created the power system used throughout the world today — one that operates at 50 and 60 cycles per second.

Tesla experimented with other frequencies, iron and air core transformers, as well as motors and generators. Tesla didn't just one day decide he was going to build his famous lightning bolt generator. It was but another step in a series of experiments that had begun years before. Here you get a complete record of this research up to 1893.

It's all here — the AC experiments and inventions that lead Tesla to experiment with ever higher voltages and frequencies, the neon tubes and fluorescent lights, unusual high frequency alternators and even magnet motors.

If you want to carry on Tesla's unusual research, you must walk in his footsteps. You must do your homework. Here in one volume is



Inventions, Researches & Writings of **NIKOLA TESLA**

the early work that will help you get your mind in sync with his and perhaps suggest what he was thinking at the time, and give you ideas of where to take his experiments.

Every Tesla fan, every high voltage experimenter, and every electrical engineer should have a copy of this classic book. Just as much as Edison, Tesla created the world in which we live today. Now you can study the results of his research, attend his special exhibitions, and devour his lectures, with this single volume. Order a copy today! 5 1/2 x 8 1/2 softcover 496 pages

No. 4902

\$18.95

CONTENTS

PART I - POLYPHASE CURRENTS

Biographical and Introductory; A New System of Alternating Current Motors and Transformers; The Tesla Rotating Magnetic Field — Motors with Closed Conductors — Synchronizing Motors — Rotating Field Transformers; Modifications and Expansions of the Tesla Polyphase Systems; Utilizing Familiar Types of Generators of the Continuous Current Type; Method of Obtaining Desired Speed of Motor or Generator; Regulating for Rotary Current Motors; Single Circuit, Self-Starting Synchronizing Motors; Change from Double Current to Single Current Motors; Motor with "Current Lag" Artificially Secured; Another Method of Transformation from a Torque to A Synchronizing Motor; "Magnetic Lag" Motor; Method of Obtaining Difference of Phase by Magnetic Shielding; Type of Tesla Single-Phase Motor; Motors with Circuits of Different Resistance; Motor with Equal Magnetic Energies in Field and Armature; Motors with Coinciding Maxima of Magnetic Effect in Armature and Field; Motor Based on the Difference of Phase in the Magnetization of the Inner and Outer Parts of an Iron Core; Another Type of Tesla Induction Motor; Combinations of Synchronizing Motor and Torque Motor; Motor with a Condenser in the Armature Circuit; Motor with Condenser in One of the Field Circuits; Tesla Polyphase Transformer; A Constant Current Transformer with Magnetic Shield Between Coils of Primary and Secondary.

PART II

TESLA EFFECTS WITH HIGH FREQUENCY AND HIGH POTENTIAL CURRENTS

Introductory — The Scope of the Tesla Lectures; The New York Lecture. Experiments with Alternate Currents of Very High Frequency, and Their Application to Methods of Artificial Illumination, May 20, 1891; The London Lecture. Experiments with Alternate Currents of High Potential and High Frequency, February 3, 1892; The Philadelphia and St. Louis Lecture. On Light and Other High Frequency Phenomena, February and March, 1893; Tesla Alternating Current Generators for High Frequency; Alternate Current Electrostatic Induction Apparatus; "Massage" with Currents of High Frequency; Electric Discharge in Vacuum Tubes.

PART III

MISC. INVENTIONS AND WRITINGS

Method of Obtaining Direct from Alternating Currents; Condensers with Plates in Oil; Electrolytic Registering Meter; Thermomagnetic Motors and Pyro-Magnetic Generators; Anti-Sparking Dynamo Brush and Commutator; Auxiliary Brush Regulation of Direct Current Dynamos; Improvement in Dynamo and Motor Construction; Tesla Direct Current Arc Lighting System; Improvement in Unipolar Generators.

PART IV

APPENDIX ON EARLY PHASE MOTORS AND THE TESLA OSCILLATORS

Mr. Tesla's Personal Exhibit at the World's Fair; The Tesla Mechanical and Electrical Oscillators.

High Voltage!



HIGH FREQUENCY APPARATUS

by Thomas Stanley Curtis
reprinted by
Lindsay Publications

By 1916 so much interest in induction, Tesla and Oudin coils had been generated by Electrician & Mechanic, Popular Electricity and Modern Mechanics, and The World's Advances magazines, that Curtis knew his book and high voltage

High Frequency Apparatus

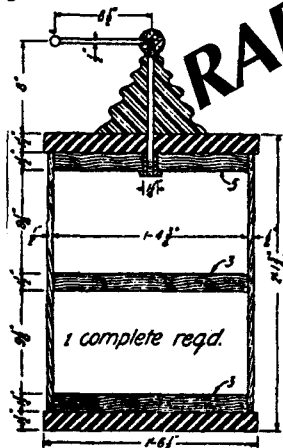
Rare Classic Text from 1916! A "Must-Have"

equipment he manufactured would be a hit.

Because of their very nature, magazines could publish only brief articles on these lightning bolt generators. Curtis went the other extreme, and packed "Apparatus" with as much detailed information as he could find. Then he added suggestions for experiments and dozens of illustrations. The result is now a classic book, and original copies are so coveted that they're difficult to find.

You get wall-to-wall how-to on coil construction. Tips on calculating windings, winding coils, making transformers, interrupters and spark gaps, and even the power transformers that drive the spark gap.

If you want to die young, you can build an X-ray apparatus. Use it long enough, and you and everyone in your apartment building will glow in the dark!



Build a grid and see for yourself if high frequency current really does affect plant growth. Build yourself a large coil that produces 50" lightning bolts, give lectures, and make people think you are a genuine made scientist.

Great book. And absolutely MUST HAVE book for the Tesla coil experimenters. Get a copy for your high-voltage library. Quality. Order a copy today. 5 1/2 x 8 1/2 softcover 247 pages well illustrated
No. 20030

\$12.95

CONTENTS

- 1 Alternating Current at Low and High Frequencies
- 2 How the High Frequency Current is Produced
- 3 The High Potential Transformer or Induction Coil
- 4 The Oscillation Transformer
- 5 The Spark Gap
- 6 Oscillation Transformers
- 7 Induction Coil Outfits Operated on Battery Current
- 8 Kicking Coil Apparatus
- 9 One-Half Killowatt Transformer Outfit
- 10 Quenced Gap Apparatus
- 11 Physicians' Portable Apparatus
- 12 Physicians' Office Equipment
- 13 Hot Wire Meter Construction
- 14 Notes for the Beginner in Electro-Therapeutics
- 15 Plant Culture with High Tension Current
- 16 High Frequency Plant Culture
- 17 A Foreword on the Construction of Electrical Apparatus for the Stage
- 18 Construction of Large High Frequency Apparatus
- 19 Large Tesla and Oudin Coils for the Stage
- 20 Construction of a Welding Transformer
- 21 Hints for the Electrical Entertainer
- Appendix Parts and Materials - How Much They Cost and Where to Get Them

ELECTRICITY AT HIGH PRESSURES & FREQUENCIES

by Henry L. Transtrom
reprinted by
Lindsay Publications

This off beat book on high voltage appeared in 1913 and was revised again for publication in 1921. Its chapters have no names. There appear to be 139 illustrations.

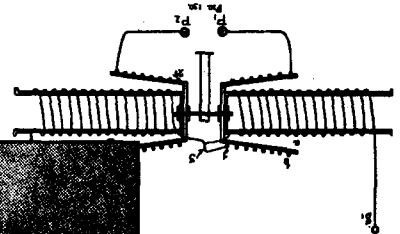
The entire first part of the book covers electrical theory on electricity, how it is pro-



Electricity at High Pressures & Frequencies

duced by generators, ideas of induction, ampere-turns, frequency and the phase shift that occurs through reactive elements and much more. This isn't heavy stuff — practical theory that builders can use, more or less translations of "heavy" engineering theory. This is great material for the experimenter in induction coils, Tesla coils, Oudin coils, and other lightning bolt generators.

You won't find much how-to, but you will find details about existing equip-



ment, how it works, simple calculations on performance, and some remarkable photographs of experiments that can be performed with a lightning bolt generator.

Chapter 13 on page 165 talks about the fact that Tesla, Fessenden and others have not been able to generate frequencies over

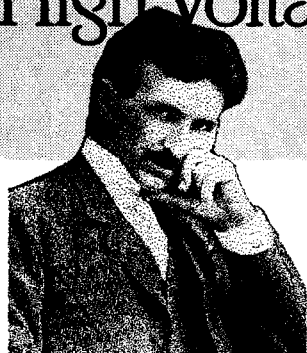
100,000 Hertz (cycles per second). Then they show you a Fessenden alternator driven by a 10 hp DC motor through gears that revolves at 20,000 rpm that kicks out over 2,000 watts of high-frequency high voltage!

You'll then read about capacitive machines. You'll see a device that develops 15,000 volts between two ends of 25 feet of No. 4 aluminum wire! Another photo shows a 10 volt 5 watt Mazda lamp is lit to full brightness although apparently short circuited by 6 inches of No. 00 copper wire! It shouldn't work, but it does. You'll see a high-frequency transformer that throws heavy 60" sparks between its terminals. Other photos show unusual high voltage experiments. The last 20% of this book is worth the price of the entire book!

This is another must have for the high-voltage library — a book that is very difficult to find in used book stores and so on. Get yourself a copy. You'll like it. Excellent book! 5x7 softcover 264 pages
No. 20544

\$11.95

High Voltage!



Tesla: Man Out of Time!

TESLA: MAN OUT OF TIME

by Margaret Cheney

"Flamboyant, eccentric, almost supernaturally gifted, had he been

born today he would still be ahead of his time. Called a madman by

some, a genius by others, and an

enigma by nearly everyone, Nikola Tesla was perhaps the greatest inventor the world has ever known..."

"It was Tesla who harnessed the alternating electrical current that we use today... Tesla who actually invented radio... Tesla who invented fluorescent lighting and the incredible bladeless turbine. He introduced us to the fundamentals of robotry and computer and missile science, which continued to create and transform the future..."

There are many books about Tesla, some of them are garbage written by groupies who worship Tesla as a god. Here's a great factual biography that has gotten great reviews — the story of a wizard who was Edison's enemy, Mark Twain's

friend, and J. P. Morgan's client. This is the real story. Excellent book at a reasonable price. Order a copy. 310 pages "mass" paperback a few photos
No. 717

\$5.95

Prodigal Genius! Classic Tesla Biography

PRODIGAL GENIUS

THE LIFE OF NIKOLA TESLA

by John J. O'Neill

"Spectacular as all his inventions seemed, they were only offshoots of his truly monumental discoveries in the basic principles of electricity. Today, dozens of his patents are in use in his adopted country, America, while in his native Serbia he is revered as a national hero.

His brilliant, eccentric personality gives to Tesla's life story the quality of the strangest romance. He made his first million dollars before he was forty, yet gave up the royalties on his most profitable inventions as a gesture of friendship, and died almost in poverty. Handsome, magnetic and elegant, he was the 'catch' of New York society, yet no woman

could win him from his dedication to science. He refuse to accept the Nobel Prize; and when others claimed credit for the revolutionary ideas his extraordinary mind threw forth like showers of sparks, he did not contest them.

In this penetrating study of the life and mind of scientific superman, Nikola Tesla is revealed as a figure of genius who influence upon the world around us is incalculable, and whose shadow stretches far into the future."

This is a newly-typeset reprint of the classic biography of Tesla. Every Tesla library should have a copy of this. No ands, ifs or buts. And the price is quite reasonable. Get one! 5 1/2 x 8 1/2 softcover 329 pages
No. 775

\$12.00

Electrical Experimenter Magazine 1916-17

THE VERY BEST FROM THE ELECTRICAL EXPERIMENTER 1916-17

anthology by Lindsay Publications Inc

You can go back to read the very best articles from one of the earliest hobbyist electronics magazines published: Gernsback's Electrical Experimenter. Readers learned how to build unusual crystal set receivers with unusual detectors, high power wireless sets, and all the equipment that went into their construction.

You'll find how-to articles on high voltage Tesla coils, induction coils, spark gap construction, batteries, detectors, water power systems, selenium cells for experimenting with primitive television systems, and more. You get the very best articles from a two year span. Many articles that cover the basics of electricity were omitted because you can find comparable material in modern magazines. Some plans were omitted because they were not unusual enough, such as motor and dynamo plans. You can find such plans in many old books.

What you will find is solid, interesting and useful information. Be careful, though! Some of this info is downright dangerous. You can get yourself electrocuted. You can give you and your neighbors cancer if you build and operate an X-Ray machine. Be very careful.

This is a great collection of rare material — something you should have in your reference library. Wall-to-wall illustrations! Interesting reading. Order a copy! 8 1/2 x 11 softcover 108 pages
No. 20137

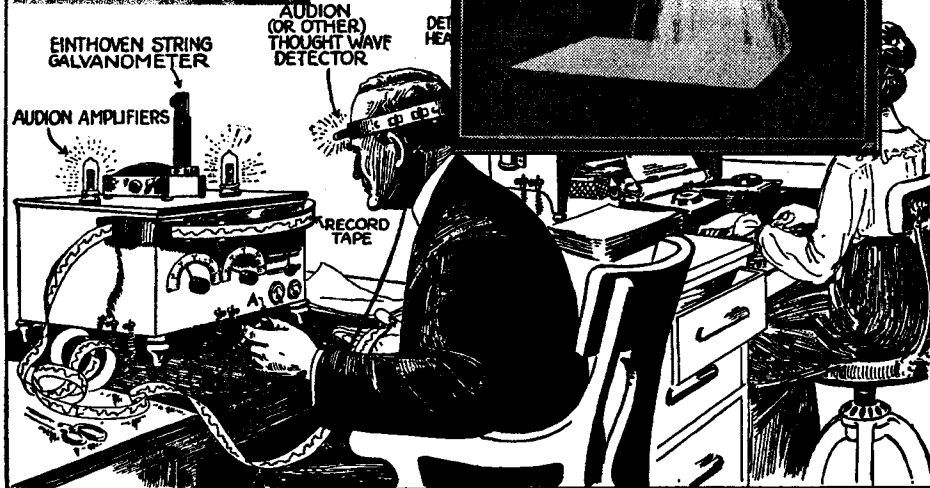
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You should know that most of the photographs in this book are not of the best quality. Poor originals, yellowed paper, oversized pages have combined to make the photographs "muddy". The drawings are very sharp, and most type is quite readable, but the photos leave something to be desired. All we can say is that we did the best job we could. See what you think.

High Voltage!



STRANGE STORIES from Electrical Experimenter Magazine

**STRANGE STORIES FROM
ELECTRICAL EXPERIMENTER MAGAZINE**
reprinted by Lindsay Publications

In perusing our collection of *Electrical Experimenter* magazines from 1917-1919, I've found a lot of useless garbage, but among that garbage are some unusual stories that I thought should be reprinted and brought to light. Most of these are connected the hero of the era, Nikola Tesla. No doubt, some of these have been reprinted and circulated elsewhere. I'm sure a few have never been reprinted.

Stories included are gravitation and electricity; can electricity destroy gravitation; a novel Tesla steam electric clock; electrical production of synthetic gasoline; Tesla's egg of Columbus; My Inventions— the discovery of the Tesla coil and transformer (by the man himself!); the thought recorder; the true wireless (by Tesla); and home treatment of tuberculosis by high frequency currents.

Some of these ideas are so off-the-wall that I don't believe them, but you read them and decide. Professor Nipher claimed he found an interaction between electricity and gravity. He experiments are described in detail. Tesla's clock is a description with photo of the steam driven alternator that drove the highly accurate clocks installed in

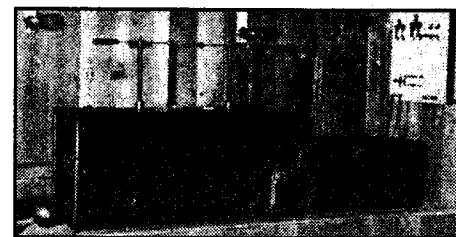
Tesla's lab. If you want to try to synthesize gasoline with a Tesla coil, I don't want to be standing nearby!

Discover how Tesla amazed an investor by making metallic eggs spin on their axis using polyphase electromagnetic fields. Tesla reveals how he came to invent his famous high voltage transformer and his early experiences in America and with Edison. Gernsback himself describes a fantastic device that he thought might record thoughts, and it looks like an ECG machine. Then Tesla and his monumental ego tries to prove that he was the true inventor of radio, although Hertz beat him to it by a number of years. (He goes on, and on, and on with diagrams and evidence.) Finally, YOU can try to cure your TB with a Tesla coil, but I think I'll stick with antibiotics, thank you.

Whether you believe these stories or not, this is interesting reading. We scanned in the original articles into the computer and reset them to make them easier to read and keep the price down. You get all the text, illustrations, and captions. It's all here in one inexpensive book. If you're into offbeat, fringe science, maybe you'll find a new mystery to explore. Fun stuff. Get a copy. 5 1/2 x 8 1/2 softcover 64 pages

No. 21613

\$6.95



Tesla High Frequency Coil

Rare 1910 is Classic Back!

THE TESLA HIGH FREQUENCY COIL

Its Construction and Use

by Haller & Cunningham

reprinted by Lindsay Publications

What you get here is a reprint of a very rare 1910 Tesla coil construction book. The authors wrote this book to provide beginning experimenters with fool-proof plans so they could build a coil capable of generating 12" arcs. (A smaller 7" coil can be built that will provide 3" sparks.)

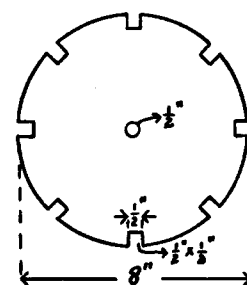
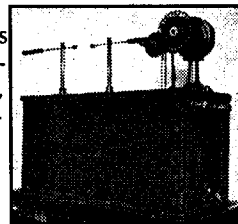


FIG. 2. — END SUPPORT FOR
SECONDARY OF OSCILLATION
STANDARD COIL.
TRANSFORMER.

Chapters include general survey, the transformer, the condenser, the oscillation transformer, the interrupter, the construction of the boxes, assembling, theory of the coil, uses of the coil and dimensions of 7"

First, you build your power transformer so that you can convert 110 volts to 10,000 volts. This iron wire cored devil is 18" long and 6" in diameter. Then you fabricate a monster condenser from 10"x 12" sheets of glass and brass dipped in paraffin. The coil primary is 12" diameter while the secondary is 8" in diameter and 17" in length. You are shown the simple air-gap and the magnetic interrupters, and you'll learn to build a motor-driven interrupter.

You get numerous photos and diagrams. Be warned, though, the photographs are "muddy" which is typical of the period. Nevertheless, you'll find this book to be well illustrated.



If you pride yourself on a comprehensive Tesla library, you must have a copy of this. This is a gem not only because it is how-to but because it is so rare. I feel lucky to have found it. I think you will, too. Order a copy. 5 1/2 x 8 1/2 softcover 119 pages

No. 21567

\$8.95

High Voltage!



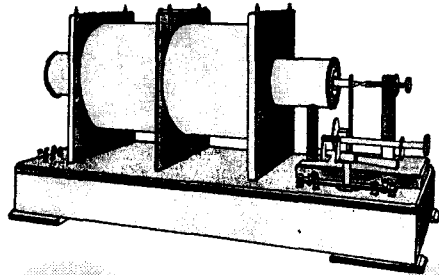
THE CONSTRUCTION OF LARGE INDUCTION COILS

A Workshop Manual

by A. T. Hare

reprinted by Lindsay Publications

A well-built induction coil can knock your socks off with greater power than a Tesla coil and at very high voltage. Induction coils are powerplants that produce lightning bolts.



Construction of Large Induction Coil

Build a big coil! One with a core 18" long that is almost 1 3/4" in diameter and weighs almost eight pounds. The secondary is made up of over 79,000 turns of very fine wire weighing 19 pounds and being almost 17 miles in length!

Chapters include: the core, the primary coil, the main insulating tube, the condenser, the commutator, the break, the secondary coil, the winding, mounting the discs, outer insulation, covering and finishing, hand breaks, electrolytic breaks and more.

You get 35 drawings showing everything from the general layout of components to the procedure of applying insulation to the main tube. You'll learn how to build the capacitor, how to build and adjust the break, and even how to build a unique machine to coat wire with paraffin to improve its insulating qualities.

If you build this monster and fire it up, just let me know so that I don't call the fire department by mistake! And if you try to hook it up to an X-Ray tube, I'm leaving the country! Excellent book. Build one of these machines, and scare the hell out of everyone!

5 1/2 x 8 1/2 softcover 155 pages

No. 20897

\$9.95

TESLA COIL HANDBOOK

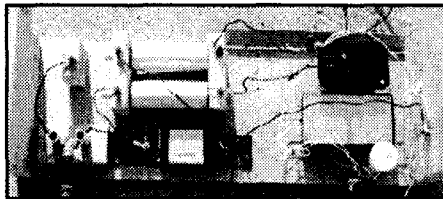
*Plans, specs, wiring
diagrams, and solid theory!*

TESLA COIL HANDBOOK

by Todd A Pringle

So much of what you find published on Tesla coil construction is badly polluted with mistakes, completely wrong rules-of-thumb, and old-wives' tales.

Pringle, a graduate electrical engineer, has done an excellent job of clearing the air by providing theory that is accurate but not overpowering. You'll learn the truth about coils and their problems, some problems often not even suspected by the builder.



You'll learn about 1/4 wave principle, the Ferranti rise, capacitors, power transformers, spark gaps and all the other components of a coil. You'll learn about design parameters and procedures, tuning and operation, sample design, and more.

You get plans, specs, wiring diagrams, and a couple of photos of a coil with a 40" x 4" secondary coil capable of throwing 28" sparks. The info on this coil alone is worth the price of the book.

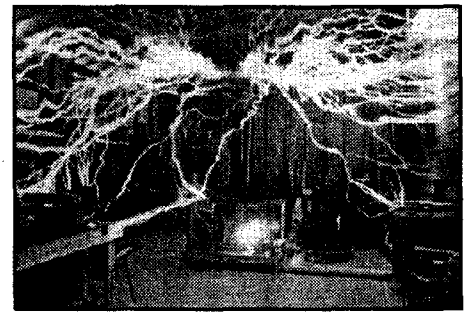
You get formulas, simple explanations of complex theory, advice from someone who has built a coil and who has far more theoretical background than most of us, plans, and suppliers of parts, and valid coil theory.

You get quality. This isn't the biggest book, the cheapest, or the most professional in appearance, but you get value. This delivers accurate information without the BS so often seen in other Tesla coil publications. I think this is worth having. Order a copy!

8 1/2 x 11 booklet binding 60 pages

No. 3007

\$9.95



Guide to Tesla's Notes!

TESLA COIL BUILDER'S GUIDE TO THE COLORADO SPRINGS NOTES OF NIKOLA TESLA

by Richard Hull

Tesla's notes of his 1899-1900 experiments in Colorado were published in English sixteen years ago in Yugoslavia. Readers had a difficult time understanding them. This book is a guide through those notes, and better yet, a translation. Even without the original notes, much useable information is provided by Hull.

You get loads of detail.

July 24, 1899- "...[Tesla] calculates that the system is oscillating at 164 kHz and then places a 30 inch sphere on the extra coil and records the usual drop in extra coil resonance to 102 kHz with a near tripling of primary capacitance needed to retune the system..." (only part of several large paragraphs)

July 27, 1899- "...Tesla realizes that he can measurably shorten his dwell time and make quenching action much more efficient if he adopts external series spark gaps to help exhaust the arc rather than letting the rotary do all the work...." (much more)

October 3, 1899- "...Tesla's secondary appears to have been slightly altered still. He is now using 17 turns. The first 14 turns are fully double spaced and he then takes two turn triple space or 4 inches apart and the final turn on the insulators is a full 22 1/2 inches above the uppermost turn within the wooden form..." (on and on and on)

You get specifications of the final system design which was used less than fifteen days. Make no mistake about it. This is a BIG system kicking out arcs over thirty one FEET long! You get details on Tesla's Colorado Springs lab and lots more.

You get a list of other publications, newsletters, videos, and a collection of absolutely impressive photos of giant coils being built and operated by the Tesla Coil Builders of Richmond. Good stuff. It will push you into new frontiers of study and research. Get started. Order a copy. 8 1/2 x 11 plastic spiral binding about 120 to 130 pages

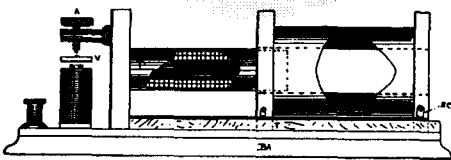
No. 3016

\$24.95

High Voltage!



Make, Use and Repair Induction Coils!



INDUCTION COILS HOW TO MAKE, USE AND REPAIR THEM

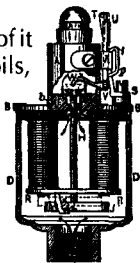
by H S Norrie
reprinted by Lindsay Publications Inc
Although this classic work first appeared in 1896, this fourth edition was printed in 1907.

Chapters include Coil Construction, Contact Breakers, Insulations and Cements, Condensers, Experiments, Spectrum Analysis, Currents in Vacuo, Rotating Effects, Gas Lighting, Batteries for Coils, Storage or Secondary Cell, Tesla and Hertz Effects, the "Roentgen" Rays and Radiography, and Wireless Telegraphy.

You get information, some of it quite unique, on Ruhmkorff coils, oil immersed coils, a disruptive Tesla coil, medical coil with interchangeable secondaries, mercury vibrators, Wehnelt interrupter, adjustable cone vibrator, insulating compounds, Leyden Jar construction, glass plate condensers, adjustable condensers, experiments with luminous effects, use of the spectroscope with coils, different forms of mercury air pumps, Geissler tubes, effects of discharges in rotating tubes, application of the Ruhmkorff coil for lighting gas, and more.

You'll learn how to build both primary and storage batteries. Investigate the "Tesla" effects, ways of generating X-Rays (very dangerous), and much more.

If it has any fault, it's that the author has tried to cover too much material in too small a book. You'll find many illustrations. They aren't all that spectacular but you do get 79 drawings, and 8 tables. Early and rare! Worth having. 4 1/2 x 6 softcover 288 pages
No. 20510 \$9.95



TESLA COIL CONSTRUCTION

TESLA COIL CONSTRUCTION GUIDE

by J. H. Couture

You get a complete revision of Couture's 1988 Tesla Handbook. Featured are plans for building five different Tesla coils that deliver sparks from one inch to eight feet! Two of these plans are new to this edition.

Chapters include introduction, warning, safety, definitions, coil theory, radiation and Faraday cage, design procedure, computer printouts, power supply, primary capacitors, spark gaps, primary and tuning coils, secondary coils, experiments and tests, and plans for a 70kv, 250kv, 350kv, 1000kv, and 1500kv system. You also get a list of other publications and a source of suppliers.

You get thirty seven illustrations including printouts from the author's JHCTES computer program. You get rare, detailed information and how-to of the same quality as found in Couture's "Tesla Coil Design Manual." If you're serious about building powerful coils, this is must reading. Consider it carefully. About 80 pages plastic spiral binding
No. 3013 \$18.00

JHCTES TESLA COIL NOTEBOOK

by J. H. Couture

This small book is a supplement to Couture's Tesla Coil Design Manual and contains necessary information for using the JHCTES computer program sold separately. Each of the 46 input and output design parameters used by the program are explained. Although the information contained is useful by itself, this book really constitutes the documentation for the computer program. Expensive but useful. 8 1/2 x 11 plastic spiral binding 29 pages
No. 3014 \$15.00

JHCTES COMPUTER PROGRAM

An easy-to-use computer program that eliminates trial and error design. This is for classical Tesla coils only. Calculations for use with extra coils is ignored. Two screens - one for input and one for output. Operation is similar to a spreadsheet. For IBM compatibles running MS-DOS. 3.5" floppy
No. 3015 \$29.95

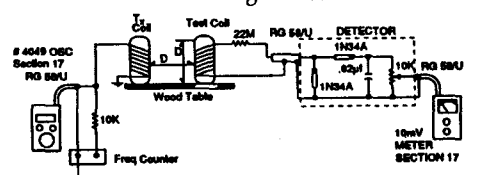
TESLA COIL DESIGN MANUAL

TESLA COIL DESIGN MANUAL

by J H Couture

In this plastic spiral-bound, somewhat expensive book you get 26 sections: introduction, warning, ground, graphs, Tesla coil theory and sparks, transformers, line filters and reactors, spark gaps, resistance, capacitance, inductance, voltages, frequency and wavelength, Q factor and log decrement, K factor, hi meg voltmeter, hi freq oscillator, inductance meter, Q factor meter, mutual inductance and K factor, BOX

The author writes, "The Tesla Coil Design Manual is the only book available today that is based on empirical design. Empirical design is design based on both theory and data from tests of real world coils. The 26 graphs are all new and have never been published before. Also shown are wiring diagrams for easily made test instruments relating to Tesla coils..."



This is like looking through the private notebook of Tesla coil fanatic. You get chunks of concentrated information, diagrams and notes on valuable test equipment designed for use in Tesla coil development. It looks like great stuff. But... If you're just a beginner, this is probably over your head because the author doesn't go into lengthy discussions. He assumes you've built coils, and are at least somewhat familiar with electrical concepts and some math. You had better be comfortable with concepts of impedance, flux lines, bridges, and more. You don't have to be an engineer or genius, but be warned, this is for the advanced experimenter.

Expensive, but excellent. If you're tired of simple coils, then get a copy of this. Unusual. 8 1/2 x 11 plastic spiral bound book 77 pages printed one side
No. 3010 \$22.95

High Voltage!



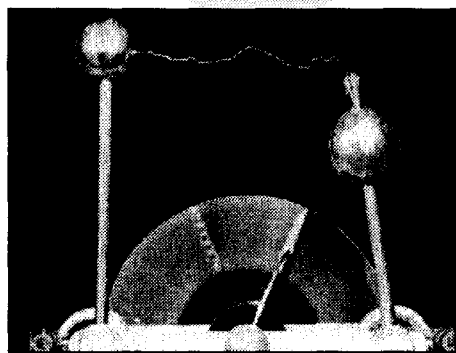
HOMEMADE LIGHTNING – CREATIVE EXPERIMENTS IN ELECTRICITY

by R. A. Ford

From the back cover:

"The author explains how to build an affordable high-voltage generator and then describes how to use the generator safely to conduct your own electrostatics research. Ford has compiled a fascinating collection of experiments to get you started that reveal the

HOMEMADE LIGHTNING



wide-ranging impact of electrostatics on motor design, plant growth, medicine, aerodynamics, gravity, photography, meteorology, and much more."

You get brief but adequate instructions, drawings, photographs, hints and tips on how to build a Wimshurst machine capable of delivering 10 1/2" sparks. You also get plans for an electroscope, the Leyden jar condenser, and the electrophorus. Ford describes experiments you can perform such as electrostatic motors, electrohorticulture, cold light, the levitating rocket, and more. You'll also get reprints of old articles on early electrostatic machines, instruments, and more.

It has much the same information you'll find in other books in this catalog, but this equipment is built with currently available materials. You'll find this book is about electrostatics, that is, static electricity. There is nothing on AC devices such as the Tesla coil. Good book. Order a copy! 7 1/2 x 9 1/2 softcover 198 pages

No. 380

\$15.95

BUILD A Wimshurst Machine!

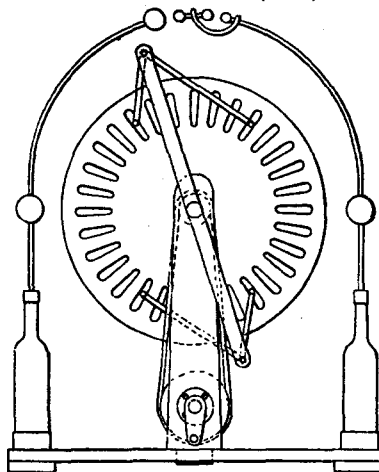
THE WIMSHURST MACHINE HOW TO MAKE AND USE IT

by Alfred W Marshall

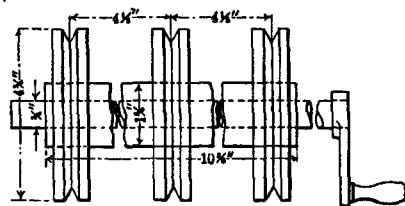
reprinted by Lindsay Publications

"A practical handbook on the construction and working of the Wimshurst machine, including radiography and wireless telegraphy, etc., and other static electrical apparatus."

Build yourself a copy of this classic lightning bolt generator. This is no toy! Its 24" plates will knock your socks off — and probably electrocute you if used with Leyden jar accumulators. This is a heavy duty machine.



Chapters include introduction, static electricity, the electrophorus, the electroscope, condensers, the Leyden jar, parts of a Wimshurst machine, making and management of Wimshurst machine, examples of machines, a large Wimshurst machine, a machine for X-Ray work (dangerous), and experiments with machines.



Driving Spindle and Pulleys.

This is a small book loaded with illustrations and wall-to-wall how-to. There are photographs but they are of poor quality. After all, in 1908 not every printer was capable of printing photographs.

This is quite a rare book. You would be hard pressed to find an original copy at any price. But you can have a copy for your library at a reasonable price and use it to build a machine or just to read. Get a copy. Great little book. You'll like it! 4x7 softcover 112 pages

No. 20331

\$8.95

TESLA COIL Design Program

Highly Accurate • Tested out to 40" arcs! • Easy to Use • Easy to Learn • Low Cost

THE TESLA COIL DESIGNER

by Walt Noon

"The Tesla Coil Designer has been written specifically to allow anyone with even the simplest knowledge of electronics to be able to design their own Tesla coil... The program has been written so that each component... can be individually calculated..."

Fire up your PC and design a coil. Walt Noon, the mad scientist, will provide you with a quality design program that offers more sophisticated design features than programs offered at twice the price.

You get a floppy and a small booklet which walks you through the design of a 200,000 volt Tesla coil. The program is not copy protected, and can be copied to your hard disk for execution. You'll need at least CGA graphics, although Walt includes a Hercules emulation program if you don't.

Just realize that garbage in gives garbage out. You can make the program design a coil that will deliver 250 million volts if you want, but it won't work if you build it. You've got to use the program to design coils of "reasonable" size and power. There are physical limits that no computer program is going to know about. Coils giving 40" arcs have been easily designed and successfully built.

The price is right for this time saver. Great graphics. Easy-to-use. If you build coils, consider this carefully. One 3.5" floppy and one 5 1/2 x 8 1/2 booklet

No. 3002

\$29.95

Dear Mr. Noon:

Thank you very much for the Tesla Coil Designer program. I found it very easy to learn and A HUGE TIME SAVER! The hours I used to spend calculating design parameters are now spent comparing various design limits. I have found your Designer to be extremely accurate in predicting coil frequency and discharge in the coils I have built since purchasing your program.... I have been very pleased with the way the program operates...

Richard T Quick, Glendale MO

Walt:

I purchased your IBM PC Tesla Coil software back in May, and I like the software very much...

Kim Kochersperger, Kokomo IN

High Voltage!

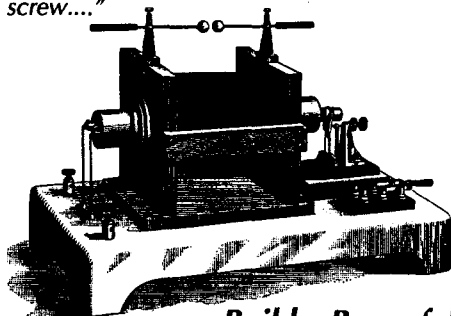


THE DESIGN & CONSTRUCTION OF INDUCTION COILS

by A. Frederick Collins

From 1908, you get one of the best books I've ever seen on coil construction.

"The present work treats of eight different sizes of coils, varying from one giving 1/2-inch sparks to a large one giving 12-inch sparks. These various sized coils are included in three specific designs, and I have tried to tell in easily comprehensible language each process in sequence, together with the dimensions of each part down to the smallest screw...."



Build a Powerful

Induction Coil!

Twenty chapters delve into the theory of the coil and the action of each of its components, design of spark coil cores, choosing interrupters, details of condenser design and size, and more. Wire is discussed along with its cutting, straightening, annealing, the making of the paper tube, bundling and taping wires for large cores, and more.

Detailed discussions reveal the advantages of silk versus cotton-covered magnet wire, winding the primary, the winding of helical secondaries, construction of aperture insulating rings, how to dip the coil and bake it, build a vacuum apparatus to impregnate the apparatus, machine the parts for a simple spring interrupter, and much more. You get wiring diagrams for various coils, final assembly details, sources of direct current including dry cells, plunge batteries, chloride accumulators, and more.

Great book! Build a coil! Create lightning! Highly recommended! 5 1/2 x 8 1/2 softcover 272 pages - well illustrated

No. 20404

\$12.95

Tesla's Experiments

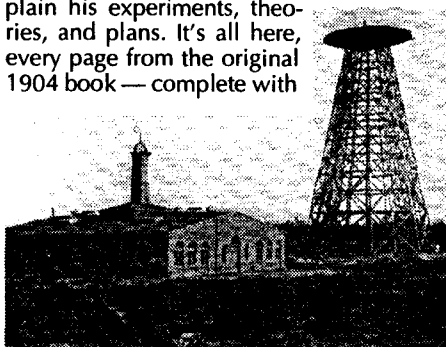
Power transmission without wires: the London Lecture plus a 1904 magazine article on the Colorado Springs experiments!

EXPERIMENTS WITH ALTERNATE CURRENTS OF HIGH POTENTIAL AND HIGH FREQUENCY

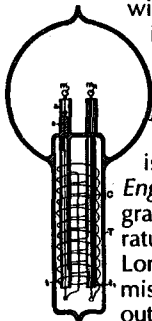
by Nikola Tesla

"A lecture delivered before the institution of electrical engineers, London, by Nikola Tesla with an appendix by the same author on the transmission of electric energy without wire, reviewing his recent work, and presenting illustrations from the photographs never before published".

Quite a title! Quite a book! There's so much written and published about Tesla (and too much of it is pure garbage), that it is refreshing to have the inventor himself explain his experiments, theories, and plans. It's all here, every page from the original 1904 book - complete with



unusual illustrations showing disruptive discharge coils, improved discharger and magnet, luminous discs, single wire and no wire motor, unusual electric lights for use with the high-frequency AC that is generated by the Tesla coil, and much more.



The last fourteen pages of the book is a reprint of Tesla's article from the March 5, 1904 issue of "Electrical World and Engineer" complete with photographs of the experimental apparatus at Colorado Springs and Long Island built to test the transmission of electrical power without wires.

Anyone who studies

Tesla, builds his coils, or wants to perfect the inventions that Tesla didn't have time to finish should have a copy of this book. The writings of Tesla himself should be the cornerstone of any Tesla library, and here is your chance to get your own copy of this now-rare book. Interesting reading. Historically important. Get a copy. 5 1/2 x 8 1/2 softcover 170 pages.

No. 4392

\$9.95

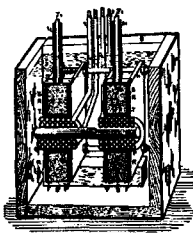
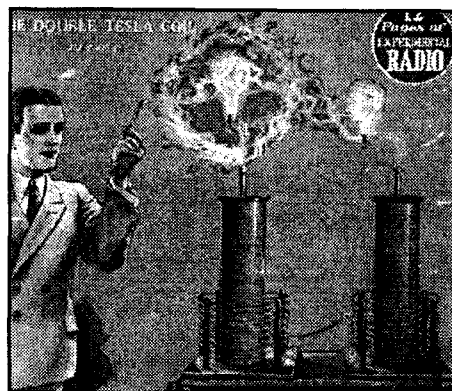


FIG. 8.—DISCHARGE COIL.



Rare Tesla Info!

DOUBLE TESLA-LOUDIN COIL

reprinted by Lindsay Publications

Here, in one small booklet are five fascinating articles reprinted from the "The Experimenter" magazine and its derivatives of the World War I era.

The first article is entitled "Seeing the Unseen" and reveals one experimenter's construction of a double coil high voltage generator that was a cross between a Tesla coil and an Oudin coil. If you want to impress the devil out of someone with a blinding 20" bolt of lightning, this 2 kw machine is the one to build.



The second article is entitled "Wireless Transmission of Power Now Possible". Supposedly a British genius devised a way to transmit power into the ionosphere using air ionized by a power beam of light.

"Home-Made Geisler Tubes" will show you how to make these neon-like tubes for use with high voltage equipment. It sounds dangerous to me, but this is how it's done.

"Testing High Voltages with Spark Gaps" is an article from 1917 that will show you how to build a very simple precision spark gap and use it to measure voltages up to 400,000 volts to within 2% accuracy as claimed by the American Institute of Electrical Engineers. It's a very simple device you can build.

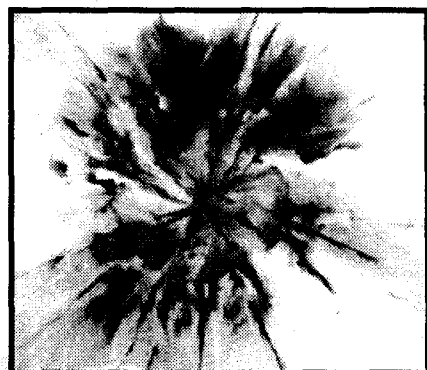
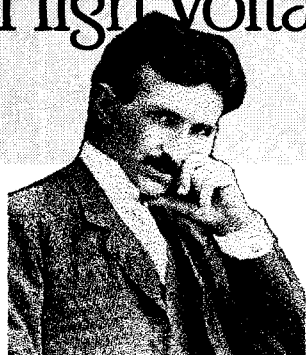
And the final article from September 1917 is entitled "U.S. Blows Up Tesla Radio Tower." You'll see photos of Tesla's long island radio tower collapsing from explosives. The unused tower was suspected of being used by spies to transmit information back to Germany.

This is a small booklet, but the information it contains is rare. The original text has been reset to make it much easier to read and all original illustrations have been retained. You may have read some of this in other Tesla books. These are the original articles. Good stuff! 5 1/2 x 8 1/2 booklet 23 pages

No. 817

\$4.95

High Voltage!



Exploding Wires!

EXPLODING WIRES

Principles, Apparatus and Experiments
by Steve Hansen

Exploding wires and foil go back a couple of hundreds of years when static electricity machines were being perfected. Even wild man, Ben Franklin, blew things up with powerful jolts of electricity. It must have been really spectacular at parties!

When you think about it, this is really a misapplied spotwelder of sorts. Essentially, you dump a vast amount of electrical energy through a thin wire in a very short time. The enormous current that flows through the resistance of the wire generates searing heat, melts the metal wire, vaporizes the metal, generates a blinding flash, and liberates a sonic shock wave (guaranteed to scare the neighbors).

In this slim but well-written and well-illustrated booklet you get everything you need to know to pull off one of the more bizarre science stunts around. You get the basic history and theory, analysis of the DC charging circuit that loads up storage capacitors, discussion of discharge and control circuits, and experiments. You also get several possible sources for the unusual components.

What good is? What good is a Tesla coil? It's for fun. Explode wires! This is a necessary course if you ever hope to get your Mad Scientist Degree. Get a copy. Very unusual information. Well done. Worth having. 8 1/2 x 11 booklet 11 jam packed pages
No. 3006 \$7.95

300,000 Volt Impulse Transformer!

CONSTRUCTION OF A QUARTER MILLION VOLT IMPULSE TRANSFORMER

by Steve Hansen

Introduction:

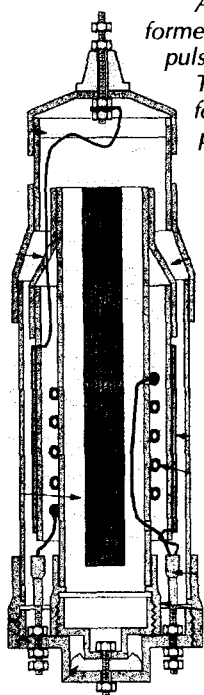
"High voltage pulses in excess of 100 kV and of multi-microsecond duration are required for many types of apparatus used in vacuum physics. Examples include charged particle sources, flash x-ray tubes, pulsed neutron and gamma ray sources and plasma immersion implantation, to name but a few....

There are several common types of transformer that are useful for producing high voltage output pulses. A type familiar to most amateurs is the Tesla coil....

Another type of transformer is the non-distorting pulse transformer....

The third type of transformer is the high peak power pulse transformer, also known as a shock or impulse transformer....

The impulse transformer that is described here is powered by a 4.4 μ F, 10 kV capacitor. With a turns ratio of 36:1, the no-load output is in excess of 300 kV...."

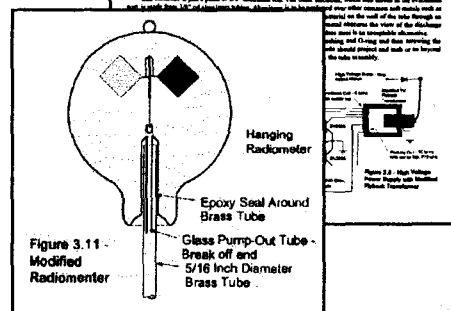
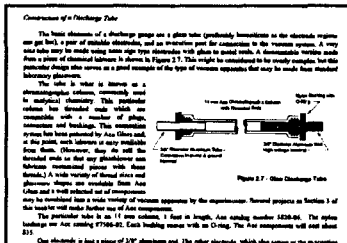


Like a Tesla coil, the wiring diagram for a pulse transformer is ridiculously simple. The secrets lie in building a device that operates without shorting out. Hansen will show you how to build this impressive device using PVC, copper tubing, a

laminated iron core and other common materials. He'll show you the high voltage power supply similar to transmitter supplies traditionally described in the "Radio Amateur's Handbook".

This beast will produce sparks only about 8" long due to its operating characteristics. If you want long sparks, go with a 300 kV Tesla coil. But don't even think of yourself as an expert in high voltage unless you're familiar this type of lightning bolt generator.

There are only a few pages to this report, but when you see the quality of the content and the beautifully drawn diagrams, you'll realize that this information is quite reasonably priced. This is a jam-packed report with proven how-to. Reprinted from Hansen's newsletter "The Bell Jar". Worth having. Get a copy. 8 1/2 x 11 pamphlet 10 pages
No. 3017 \$7.95



Experimenter's Introduction to Vacuum Technology!

An Experimenter's Introduction to
VACUUM TECHNOLOGY
by Steve Hansen

Get started in the world of vacuum. After you learn what's here, you'll be ready to jump into the world of very high vacuum..

Take a refrigerator compressor and turn it into a vacuum pump. Build a glow discharge tube powered by a high voltage supply built from a modified TV flyback transformer. Make thermocouple gauges with op-amp controllers. Learn how to seal up equipment with o-rings, compression fittings, nylon washers, and more. Build a replica of a very early cathode ray tube, the Braun tube. Build a cold cathode CRT. Build a radiometer. Build a plasma sphere - one of those spheres with the dancing colored electric arcs that change when you bring your hand near. And you can always re-enact the famous Magdeburg sphere experiment of the 1600's.

Chapters include means of producing vacuum, vacuum technology, materials, vacuum applications and pressure ranges, low cost mechanical pumps, simple gauges, useful flanges and connectors, a simple vacuum workstation, a manifold for gaseous discharge and electron beam experiments, experiments with glow discharge produced electron beams, the radiometer, a plasma sphere, Magdeburg hemispheres, along with lists of suppliers and references.

These are reprinted articles from Hansen's newsletter "The Bell Jar". Each is clearly explained, illustrated, and is proven how-to using modern materials. Everything here is meat. No fluff. Worth having. Get a copy. 8 1/2 x 11 booklet 39 pages
No. 3018 \$14.95

High Voltage!



Secrets of Building Electrostatic LIGHTNING BOLT GENERATORS

by Walt Noon

Generate lightning bolts of static electricity! Walt Noon will show you and explain the experiments he has run, the problems he has encountered, his solutions to those problems, ways to build low cost lightning bolt generators from parts on hand, ideas that yet need to be explored and much more.

Walt covers the electrophorus, his Roto-static generator, his bizarre "Cat-o-Static" generator, motor speed controls, external Van de Graaff generators, the classic internal Van de Graaff generator, ideas for an extremely high voltage Van de Graaff, inductive electrostatic generators, the Dirod generator, and more.

You'll find the equipment Walt has used to measure the voltages he has generated including his FET electroscope, neon lamp banks, spark gap volt meters, and more. Walt

LIGHTNING BOLT GENERATORS!

including high voltage test equipment, experiments, motors, more!

will show you how to build storage capacitors along with details of his successes and failures.

You get a list of interesting experiments to perform from something as simple as making your hair stand on end to building a "perpetual motion" machine. You'll learn about a variety of ion motors, ion blowers, the Franklin electrostatic motor, the Poggendorff Corona Motor, and even capturing free electrical energy from the atmosphere (Ben Franklin did this, and it almost killed him!) As a bonus Walt will show you how he electroplates

metal onto non-conducting forms to build low-loss high voltage terminals!

Walt is not a scientist nor a fantastic author. But he will clearly and humorously explain some of the crazy experiments he's tried and hopes you'll improve on. You get an easy-to-read text loaded with photos and drawings. You'll find that it's really quite easy to get started in electrostatics, and Walt's book will get you going! Excellent book! Worth having. Get a copy. 5 1/2 x 8 1/2 softcover 91 pages No. 20900

\$8.95

Early Machines!

SILLIMAN'S ELECTRICAL MACHINES

reprinted by Lindsay Publications

You get beautifully illustrated pages from Benjamin Silliman's 1865 *Principles of Physics or Natural Philosophy*.

Learn about electrophorus, the cylinder electrical machine, Ramsden's plate machine, the American plate machine, Ritchie's double plate machine, the Tylerian machine, care & management of machines, electricity from steam, and other sources of electrical excite-

ment. Discover seven simple but entertaining experiments. Then investigate equipment to store electricity such as the Æpinus condenser, Volta's condensing electroscope, Dr. Hare's single gold leaf electrometer, the diamond jar, scintillating tube and magic squares, chemical experiments, Volta's lamp and more.

Another collection of rare static electricity information! Wood engravings like these haven't been produced in decades. Rare info! Get a copy. 5 1/2 x 8 1/2 booklet 24 pages No. 840

\$3.25

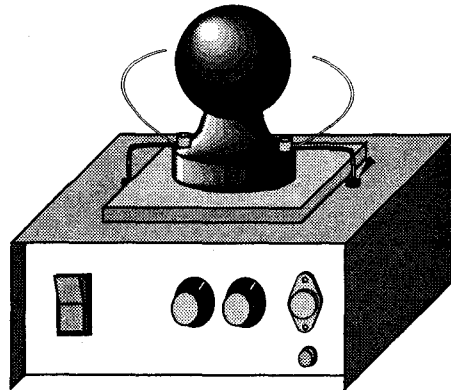
LINDSAY PUBLICATIONS INC, PO Box 538, Bradley IL 60915 • 815/935-5353

HOW TO BUILD A 40,000 VOLT INDUCTION COIL

by Walt Noon

Are you looking for a fast and simple way to generate high voltage? Try this.

The ignition coil in your automobile is the modern equivalent of an old time induction coil. It is nothing more than a transformer that converts low voltage into very high voltage. The points in your automobile replace the old fashioned spark gap. Every time the points open, a pulse of DC current hits the coil like a hammer hits a bell. The ignition coil "rings" like a bell and produces a burst of high voltage. If you "hit" the coil fast enough, the ringing seems to be continuous.



Build a 40,000 Volt Induction Coil

Walt Noon's circuit here replaces the spark gap and the points with a low cost solid state circuit centered around a 555 timer IC. The circuit takes 110 VAC out of your wall and converts it into a string of DC pulses. The pulses are sent to the terminals of an ignition coil that you can purchase at your local discount store. Off the high voltage terminal comes a solid 40,000 volts that can be used for a variety of experiments including plasma globes and Kirlian photography.

You get drawings of the unit, parts list, circuit diagram, photos and assembly instructions for the coil. You are expected to have at least some experience building modern electronic equipment with perf board. You get hints, tips and suggestions on where and how to make circuit modifications. You also get eight different experiments plus extensive details on Kirlian photography with a modified 35mm camera.

Get a copy of this and shock the pants of your friends. It's unusual and they will be amazed. Well written and to the point. Get a copy. 5 1/2 x 8 1/2 booklet 24 pages No. 844

\$4.95

High Voltage!



Build Electrical Instruments!

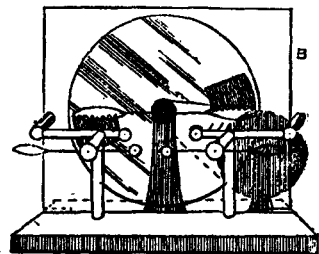
ELECTRICAL INSTRUMENT-MAKING FOR AMATEURS

by S. R. Bottone

reprinted by Lindsay Publications Inc

Go back a hundred years and build your own electrical equipment.

You get basic information on materials, soldering, and working glass. Then you build pith ball and gold leaf electrosopes, a Coulomb torsion balance, and Volta's electrophorus static generator. You'll learn how to take a sheet of glass and cut a circle from it, drill a hole in the center and use it to build Bertsch's high-voltage static generator, Carre's Dielectric machine, a Holtz machine, and a



Wimshurst influence machine.

Build a medical coil that produces a 1/2" spark, or a 1" spark induction coil.

With a powerful magnet you can make a shocking machine. Build a uni-direction current machine (a motor), a dynamo, an ammeter, a voltmeter, a galvanometer, batteries, a single fluid cell, a double fluid cell, and using these two basic battery configurations how to create powerful batteries using chemicals from zinc chloride and sulphuric acid to sal ammoniac and potassium dichromate which are more commonly known as the Daniell, Bunsen, Smee, Walker cells and others. Then you get simple plans so that you can build a working electrical telephone, the newest technology in 1888.

Obviously so many topics are covered in such a small book that the number pages devoted to each topic are necessarily limited. Nevertheless, you get enough useful information to build working equipment. The illustrations are primitive by today's standards but are informative. Fascinating book! Valuable information! Get a copy. Worth having. 5x7 softcover 183 pages

No. 4929

\$9.95

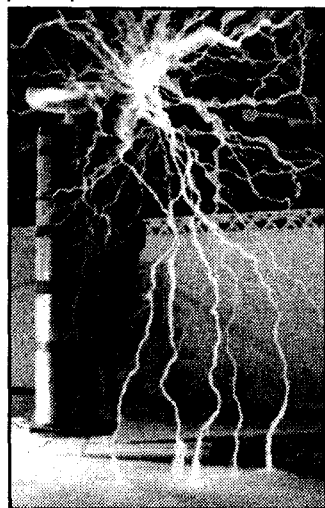
Space Age Projects

BUILD YOUR OWN WORKING FIBER OPTIC, INFRARED AND LASER SPACE-AGE PROJECTS

by Robert E. Iannini

From the back cover:

"Here, you'll find plans for such fascinating devices as a high sensitivity laser light detector... a high voltage laboratory generator that's useful in all sorts of laser, plasma ion, and particle applications as well as for lightning displays and special effects... a solid-state gallium arsenide injection laser system capable of producing 4- to 30-watt peak power infrared pulses at 200 to 2500 pulses per second... an infrared viewer that



has functions ranging from nighttime surveillance to viewing IR laser beams..."

"Robert Iannini is an electrical engineer and inventor. He holds numerous patents on such products as electronic and ultrasonic insect and pest control devices, stay-awaked devices for drivers, and other high technology devices..."

You get fourteen different projects, twelve of them being laser devices. But even chapter fourteen oughta fire ya up! He'll show you how to build a DC power supply capable of delivering microamps of current at voltages adjustable from 35,000 to 250,000 volts! This is not a Tesla coil. This is similar to the high voltage supply in a TV set with a voltage multiplier attached. The voltages produced are so high that generation of X-Rays becomes a very real danger when using this machine. You have to be careful.

You get schematics, diagrams, step-by-step how-to, safety precautions and more. Unusual how-to, to say the least! Imagine! The next time you catch raccoon digging through your garbage cans, you can nail them with a laser! Fry the roaches under the kitchen sink! Clobber that snake the comes slithering out of the toilet bowl and scares the hell out of your mother-in-law. (On the other hand, let the snake be. He's too much fun...) Get a copy of this, build yourself a laser and a lightning bolt generator. Strange, hi-tech stuff. Go for it! 7 1/2 x 9 softcover 262 pages

No. 393

\$17.95

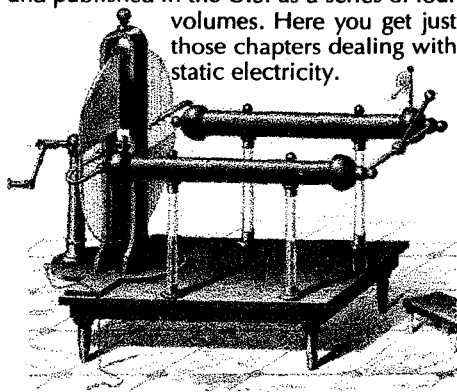
Deschanel's Static Electricity

DESCHANEL'S STATIC ELECTRICITY

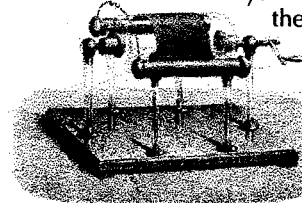
by A. Privat Deschanel

reprinted by Lindsay Publications Inc

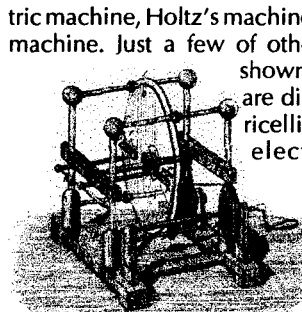
In 1884 Deschanel's "Elementary Treatise on Natural Philosophy" (what we now called physics) was translated from the French and published in the U.S. as a series of four volumes. Here you get just those chapters dealing with static electricity.



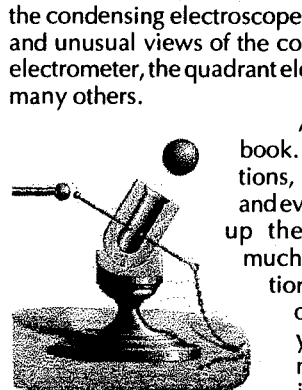
You get chapters from an translated 1884 French physics text covering static electricity. Besides basic theory you'll see



Nairne's machine, an unusual variety of Winter's machine, Armstrong's Hydro-electric machine, Holtz's machine, and Bertsch's machine. Just a few of other experiments shown and described



are discharge in Torricellian vacuum, the electric egg, the spangled globe, the electric mortar, Leyden jars, the condenser of Aepinus, and the condensing electroscope. You'll see rare and unusual views of the complex portable electrometer, the quadrant electrometer, and many others.

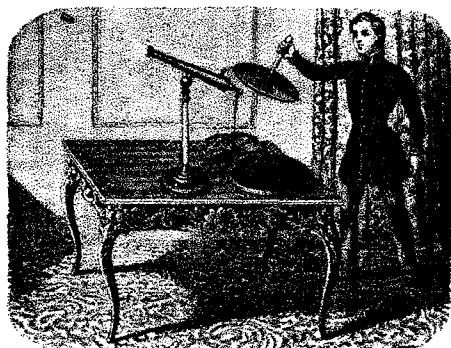


A detailed textbook. Great illustrations, excellent text, and even math to back up the theory. Yes, much of this information is available in other books, but you're sure to get many new ideas. Great research reference. You'll like it. Get a copy! 5 1/2 x 8 1/2 softcover 112 pages

No. 20722

\$7.95

High Voltage!



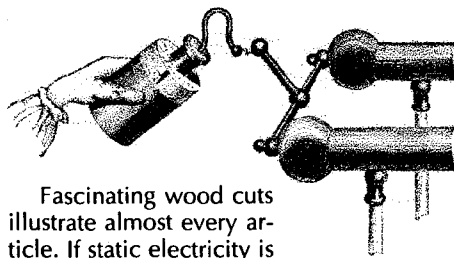
ELECTRICAL RECREATIONS

**WILLIAM PECK'S
ELECTRICAL RECREATIONS**

reprinted by Lindsay Publications

Try 1860 static electricity experiments designed to inform and entertain students studying physics in schools and academies. Some of this is old hat, but parts will be quite new and interesting.

Learn about the electrical chime, an electrified puppet, the electrical wheel, the electrical egg, the electrical square, the electrical cannon, the condenser of Epinus, using the condenser, slow and fast discharge of the condenser, a battery of Leyden jars, the condensing electrometer, electrocution of dogs!, heating power of electricity, and the mechanical effects of electricity.



Fascinating wood cuts illustrate almost every article. If static electricity is your field, you'll want to add this low-cost booklet to your reference library. Very unusual. Get a copy.

5 1/2 x 8 1/2 booklet 24 pages

No. 839

\$3.25

J. H. Pepper's STATIC ELECTRICITY!

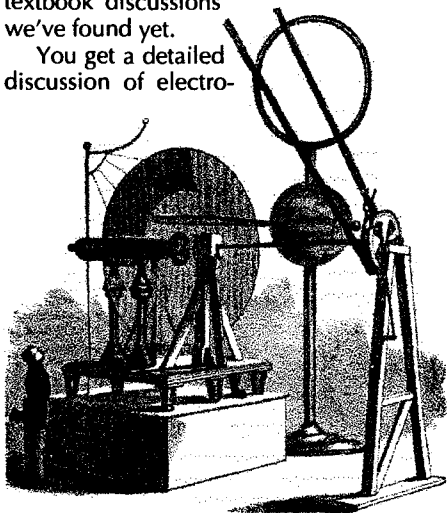
STATIC ELECTRICITY

by J. H. Pepper

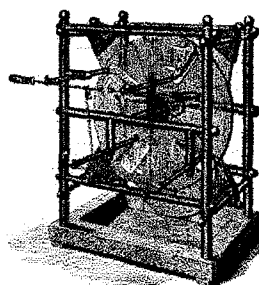
reprinted by Lindsay Publications

Back in the 1880's giant lightning generators were built by amateurs and educators and bizarre experiments performed. From Pepper's "Cyclopaedic Science Simplified" we've reprinted the chapter entitled "Electricity, Frictional or Statical", one of the best textbook discussions we've found yet.

You get a detailed discussion of electro-



scopes, 17 electroscope experiments, Cavallo's Cylinder Electrical Machine, the Royal Polytechnic Great Plate machine, Winter's electrical machine, the Holtz machine, the Electric Well experiment, experiments in induction, charge storage techniques, lengthy discussion of Leyden jars, the Leyden battery, followed by another thirty experiments including Cuthbertson's Balance



Electrometer, the electric bomb, Harris's thundercloud needle, and a couple of machines for generating high voltage with a steam jet!

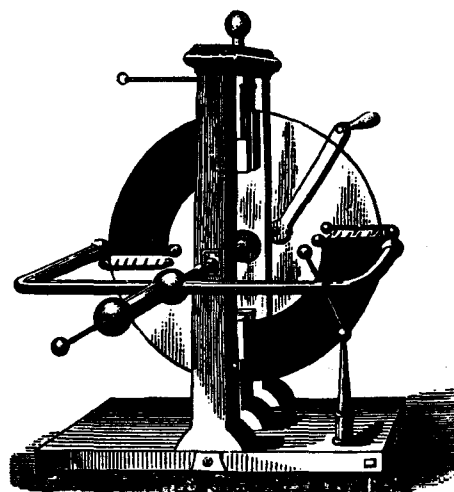
And much more.

Although this is not really a cookbook for building equipment, the wood engravings are quite detailed, and the text describes the equipment thoroughly enough that you could probably build the devices without great trouble.

If you like to explore old scientific principles, build unusual apparatus, or just impress your friends, consider a copy of this unusual book. I think you'll like it. 5 1/2 x 8 1/2 softcover 88 pages

No. 4783

\$5.95



Angell's Magnetism & Electricity

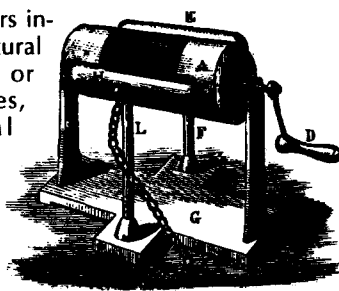
**ELEMENTS OF MAGNETISM
AND ELECTRICITY**

by John Angell

reprinted by Lindsay Publications

You get a British textbook from 1892. Half the book, which is so beautifully illustrated, covers static electricity equipment including "practical instructions for the performance of experiments, and the construction of cheap apparatus."

Chapters include natural magnets or lodestones, artificial magnets, terrestrial magnets, history of frictional electricity, elec-



troscopes and electrometers, electrical induction, frictional electrical machines, distribution and tension of electricity, the Leyden jar, and experiments. The last two chapters deal with voltaic or current electricity and its use in electroplating, the telegraph, induced currents, magneto-electricity and thermo-electricity.

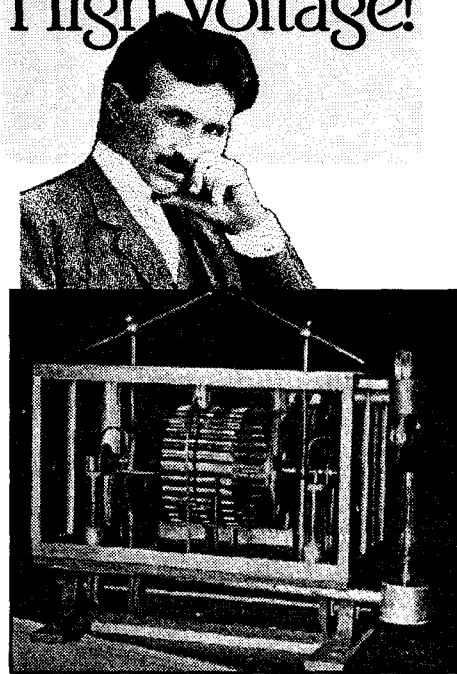
Build yourself a high-voltage machine, charge up Epinus's condenser, and use the charge to create electrical hail inside a bell jar, or take an electrical portrait. Try Faraday's ice pail experiment.

A great little book loaded with hard-to-find information. Fun reading. Great ideas for static electricity fanatics. Great engravings. Order a copy, and get started! 4x7 softcover 264 pages

No. 20862

\$8.95

High Voltage!



High Voltage Farming!

ELECTRICITY IN AGRICULTURE AND HORTICULTURE

by Prof. S. Lemström

reprinted by Lindsay Publications

Lemström's contention is that electricity will make plants grow larger, faster, healthier. He opens his book with an observation that plants grown in Finland and northern Norway in the 1860's were larger and more productive than those grown at lower latitudes where it was warmer. He attributed this to the electrical currents that appear in Polar light.

The rest of his book deals with controlled studies of plants grown with and without electrical stimulation from a Holtz high voltage machine. The prof then considers controlled experiments conducted in Germany, Sweden, and England in the summers of 1902 and 1903. The results seem to show that the electricity promoted growth.

This is not a machinery how-to book, but it IS an interesting thing to test once you build a machine. You might be able to turn out gigantic terrifying tomatoes in your backyard.

I don't know what to think. I've seen parts of this book cannibalized and reprinted in a number of other books. No longer do you have to wonder what has been left out. Here's the whole thing for your reference and research library. Unusual. Rare. Grab a copy. 5 1/2 x 8 1/2 softcover 72 pages plus several plates

No. 21320

\$9.95

Tesla Coil Plans

TESLA COIL

by George Trinkaus

Here's another Tesla coil book. It's a bit expensive for what you get, and much of it is a repeat, but there are some bits and pieces that I haven't seen.

You get a brief overview of Tesla, his career and his coil. Then you get instructions on building a good sized coil using a neon transformer and a spark gap to drive the primary. The detail is not great but is probably adequate.

You get brief discussions and details on capacitors, glass-and-foil capacitors, oil capacitors, salt-water

capacitors, series and rotary spark gaps, a schematic for a 6L6 vacuum tube driven coil, construction notes, hazards, Tesla lighting, ozone disinfectant, and magnifying transmitter. All this in 21 pages!

Obviously, the booklet does not go into great detail, but there are ideas and clues here that you might not have thought of yet that might be worth the price and then some. You'll have to decide. Consider it carefully. 7 x 8 1/2 booklet 21 pages

Cat. no. 741

\$4.95

Oudin Coil Plans

PLANS & INSTRUCTIONS TO BUILD THE HIGH FREQUENCY ELECTRIC COIL

by John F. Nuyen

An Oudin coil is a Tesla coil which generates very high voltage at very low current. If you want to generate lightning bolts this baby will do it. Like the coil above it is driven by a Model-T hum coil and an 8 gauge primary. The secondary is wound with 34 gauge magnet wire around paper tubes.

You'll find this is brief, typewritten, and not "slick" in appearance, but is written by someone who has done it. If you're into Tesla coils, you should have this. Order a copy.

5 1/2 x 8 1/2 booklet 16 pages

Cat. no. 375

\$4.00

Consider subscribing to the **Bell Jar**, *The Journal of Vacuum Technology and Related Topics for the Amateur Investigator*. You get four issues per year for \$20.00. In this Winter 1995 issue, I see three major articles: refrigeration service vacuum pumps, Geiger counters and power supplies, and construction of a radiometer and a Pirani gauge. This is great, unusual how-to.

The Bell Jar, 35 Windsor Dr, Amherst NH 03031

Strange High Voltage Medicine!

STATIC, HIGH FREQUENCY, RADIO, PHOTO AND RADIUM THERAPY

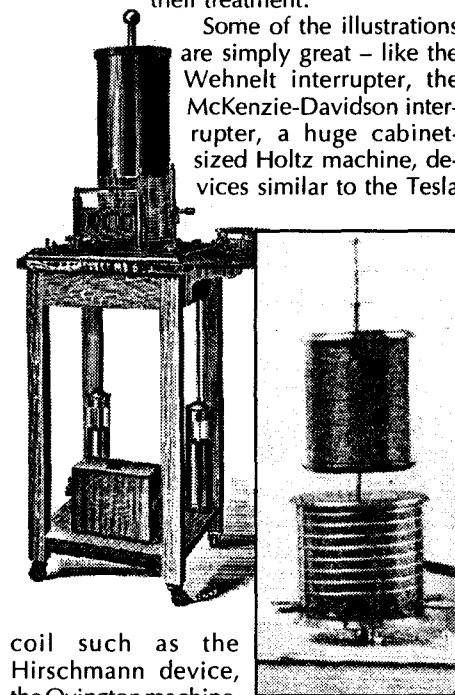
by William Harvey King

reprinted by Lindsay Publications

If you like unusual electrical apparatus, you'll find this interesting. But I would be very careful to believe the medical claims made here.

Chapters include: static electricity, induction coil, X-rays, high-frequency currents, Finsen and ultra-violet light, radium, electrophysiology and methods of application, use of static electricity, application of the high-frequency currents, the Roentgen ray, electric light bath, and chapters on diseases and their treatment.

Some of the illustrations are simply great - like the Wehnelt interrupter, the McKenzie-Davidson interrupter, a huge cabinet-sized Holtz machine, devices similar to the Tesla



coil such as the Hirschmann device, the Ovington machine, and more. The Piffard chair could have been used at Sing-Sing. You'll see a beautiful illustration of the combined d'Arsonval solenoid and Oudin resonator. Check out a quack medicine device that looks like an early tanning bed. And there are some "interesting" pix of people with nasty looking tumors and lesions. (Keep 'em away from me...)

This is a fascinating look at electrical machinery, but it is not a construction manual. Anyone can build a Tesla coil. But if you build your coil to look like these and install it in a fine cabinet people will be convinced you ARE a mad doctor. Maybe Hollywood will put you in their next Frankenstein movie.

You'll find this to be an interesting and very rare book. I can't believe many were sold in 1905. Quite unusual. Order a copy. 5 1/2 x 8 1/2 softcover 291 pages

No. 21311

\$9.95

High Voltage!

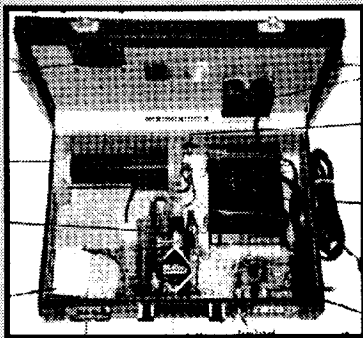


Lakhovsky Oscillator

LAKHOVSKY MULTIPLE WAVE OSCILLATOR HANDBOOK

compiled by Thomas J Brown

Supposedly sometime before World War II, Russian experimenter Lakhovsky asked Nikola Tesla to help him design a high voltage generator that could produce electrical energy at many different frequencies simultaneously. A model of the machine was tested by physicians of the time who found that it not only had a 98% cure rate for terminal cancer, arthritis, and other "hopeless" diseases, but that it could rejuvenate plants and animals as well.



No doubt the oscillator works and is an interesting piece of equipment, but I wouldn't stake my health or anyone else's on it. Quack medicine machines were everywhere in the 1920's & 30's. This could well be another.

In this typewritten report you get historical details, wiring diagrams, construction tips, articles on waves that heal, "documented" cases of cure, reprints of the Lakhovsky patents, and a series of reprinted magazine articles on the use of radio frequency waves to cure disease.

Modern physicians have found that electrical fields can speed healing of wounds in some instances. Perhaps this material has some merit, or perhaps it's all a hoax. Maybe it's another suppressed invention. You figure it out. You'll find it interesting reading — a very unusual collection of material. Get a copy. 8 1/2 x 11 softcover 144 pages
No. 357 \$17.95

ALL ABOUT LIGHTNING!

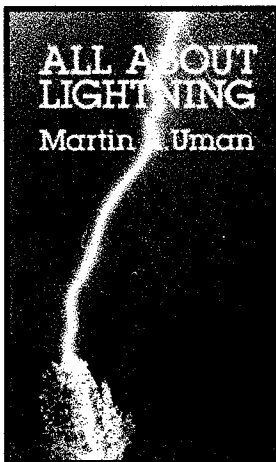
ALL ABOUT LIGHTNING

by Martin A Uman

You'll enjoy this great easy-to-read, highly entertaining book on lightning and its dirty work. From the back cover:

"Does lightning strike twice in the same place? How does a lightning rod work? What is ball lightning? How many thunderstorms are in progress in the world at any one time? Why does lightning zigzag? What is St. Elmo's Fire?..."

You'll discover how Benjamin Franklin proved that lightning was electrical, how to protect yourself from lightning, how to photograph lightning (it's not difficult), the possible relationship between ball lightning and UFOs, the nature of sheet lightning, ribbon lightning, bead lightning and other variations, and much more....
Fascinating book. Get a copy!
5 1/2 x 8 1/2 softcover 192 pages
No. 5001 \$5.95



JACOB'S LADDER

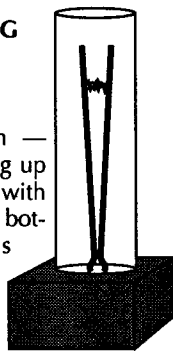
Plans & Instructions to BUILD THE TRAVELING ELECTRIC ARC (JACOB'S LADDER)

by John F. Nuyen

You've seen them — those two wires sticking up in the air in a "V" shape with a spark that starts at the bottom and slowly travels upward. You've seen them in the "mad scientist" movies.

The ladder is easy to build and quickly goes together. It makes an impressive science fair project, although I'm not sure exactly what scientific use there is for it. Maybe you can use it to terrify your neighbors.

Another typewritten booklet by someone who has done it. Get a copy — for your reference library, if nothing else. 5 1/2 x 8 1/2 booklet 16 pages
No. 376 \$4.00



X-RAY & GEISSLER TUBES VIDEO!

VIDEO - IN QUEST OF THE LIGHT; VISIBLE AND INVISIBLE

by Kruezer and Hardesty

Tour an amazing collection of early electrical hardware and watch it operate. You'll see electrosopes, pictures of early electrostatic machines and vacuum pumps, early batteries and galvanometers. You can watch as each of several early inductions coils come to life throwing big sparks. See an early device used by physicians to measure the voltage of their high-voltage electrical machine before turning it on their patients.

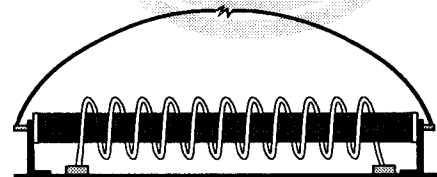


Then watch colorful Geissler tubes (related to neon tubes of today) come to life when

they're connected to an induction coil. Watch the amazing paddle wheel in operation. See Crookes tubes and a variety of early X-Ray tubes. Learn how they had to be controlled and operated. You'll also see the rare pamphlets Roentgen published announcing his discovery a hundred years ago.

You get a fascinating historical exhibition of early electrical equipment with informative narration. To see early Geissler and X-Ray tubes operate is full color is exciting. I don't know where else you'll find an experience like this. Very entertaining. Get a copy! 90 minute VHS video tape (NTSC only)
No. 396 \$29.95

"Mini" Tesla Coil Plans



Plans & Instructions to Build the "MINI" TESLA ELECTRIC SPARK COIL

by John F. Nuyen

You get a small booklet, typewritten booklet with practical how-to on building a classic Tesla coil. This coil uses a primary of 8 gauge wire driven by a Model-T hum coil which can be purchased from some auto supply houses (suggested sources provided.) The primary consists of 34 gauge wire wound around a 16" length of PVC tubing.

I must warn you that the how-to is not extremely detailed, but it's still quite good. This is a homegrown coil and a homegrown publication that you won't find in any bookstore. Brief, but fairly priced. 5 1/2 x 8 1/2 booklet 16 pages
No. 374 \$4.00

High Voltage!



PROCEEDINGS OF THE 1990 INTERNATIONAL TESLA SYMPOSIUM

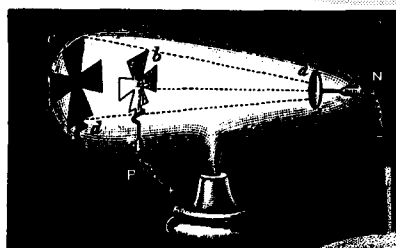
edited by Steven Elswick

Explore this collection of practical, experimental, and, in some cases, loonie ideas related but not limited to Tesla. Some of this is fascinating reading, some a rehash of material available elsewhere, and some the raving of people who claim that scientists are all wrong, and that they have

the knowledge that will totally change the world.

Included are the Tesla Museum, the AC/DC war, a great paper by Jim Hardesty on X-Rays and Electron Beams, 100 Years of Cavity

Tesla Symposium 1990



Resonator Problems, Rediscovery of Tesla's RF Techniques, Computer Aided Design of Tesla Coils, Active Antenna for ELF Magnetic Fields, Tesla Tech-

nology and Radioisotropic Energy Generation, Current Tesla Turbine Technology, Non-Hertzian Scalar Energy and EM Energy: The Biological Connection, Nikola

Tesla: Father of Bioelectronics, and the "good stuff": Tesla Wave Physics for a Free Energy Universe, Engineering Intro to Zero Point Energy, Tapping the Zero-Point Energy and Scalar Current, Nonlinear Dynamics, Nonconventional Energy and Propulsion Methods, High Voltage Concentric Field Generator Design, Energy Phenomenon, Experiments in Synchronicity, and the Gary Magnetic Effect.

Expensive, but filled with very unusual material. Well illustrated. The only published documentation of the 1990 Symposium held in Colorado. If Tesla and bizarre science is your thing, then this is definitely for you. Get a copy. 8 1/2 x 11 hardcover over 350 pages No. 768 \$49.95

Won't Ever Underestimate Again!

Dear Mr Lindsay:

I don't know how you do it. I received your catalog one week after I sent out my request for it. I was amazed at the selection of books that you offer, all at very reasonable prices. The low shipping costs had me worried for a while. I assumed, since many places charge \$4.95 shipping and handling for a book that takes six to eight weeks to arrive, that

books from you would take at least that long and arrive to me in poor condition. I was completely wrong. Less than a week after I sent out the order form for my first set of books from you, they were in my hands in perfect condition. I will never underestimate you or your company again. Keep up the good work.

Nick Pandisco
Hopkinton MA

(I think we've spoiled Nick Pandisco. We try to get as many orders out the door as fast as we possibly can. It's called productivity. It keeps prices down.)

Tesla's Lost Inventions

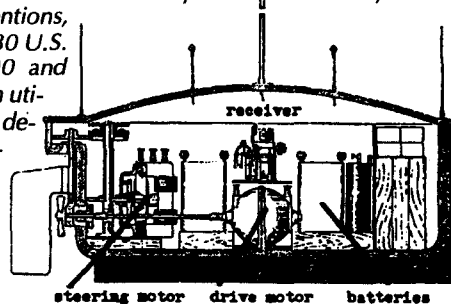
TESLA: THE LOST INVENTIONS

by George Trinkaus

"Here are the suppressed inventions of Nikola Tesla all in one place rendered in clear English and in 42 illustrations. Tesla was famous at the turn of the century for inventing the alternating-current system still in use today. But his later inventions, documented in some 30 U.S. patents between 1890 and 1921, have never been utilized as Tesla intended despite their obvious potential for advancing in fundamental ways the technology of modern civilization. Among these lost inventions: the disk-turbine rotary engine, the tesla-coil electric energy magnifier, high-frequency lighting systems, the magnifying transmitter, wireless power, and

the free-energy receiver."—from the front cover.

Like Trinkaus's other Tesla book, the only criticism that can be leveled here is that the chapters are too short. Interesting, unusual information, especially if you're



just beginning your study of Tesla. Fairly priced. 8 1/2 x 7 booklet 34 pages No. 748 \$5.95

Tesla's Engines

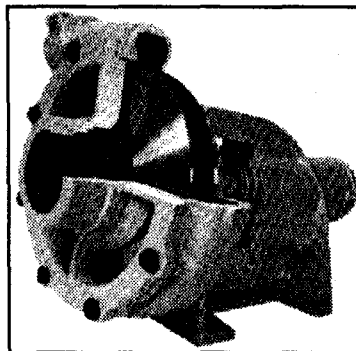
TESLA'S ENGINES

A NEW DIMENSION FOR POWER

compiled by Jeffrey A Hayes

Some of this material was once covered in a book called *Boundary Layer Breakthrough* THE BLADELESS TESLA TURBINE compiled by Jake Possell. This appears to be a rewrite of the original, expanded and improved.

In 1909 Nikola Tesla applied for a patent on his bladeless steam turbine that could generate ten horsepower per pound of weight. Actually, the patent granted in 1913 was entitled "Fluid Propulsion" because the turbine could also be used as an efficient pump. Today, Tesla fans claim that this turbine is the solution to many of our energy problems, and that the modern world is ignoring one of the greatest inventions ever. You'll have to decide for yourself.

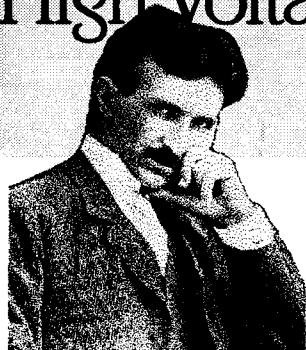


Here you get a collection of articles on the turbine/pump. Chapters include Tesla Gasoline Engine, Sea Power Plant Designed by Tesla, Tesla's New Fluid Propulsion, A Revolution for Electric Motors, New Inventions by Tesla, The Tesla Turbine (articles from *Pop Mechanics*, *Boys Book of New Inventions*, *Prodigal Genius*, others), and more.

You get many photos of applications, reproductions of the original patent plus related patents and much more. You'll get info on the Tesla Engine Builders Association which could open up new avenues of experimentation for you.

This is an offbeat, quality book on an unusual topic. You hear a lot about Tesla's electrical inventions, but little about his machines. Get a copy of this. 5 1/2 x 8 1/2 softcover about 224 pages No. 1307 \$19.95

High Voltage!



Radio Tesla

RADIO TESLA – The Secret of Tesla's Radio and Wireless Power
by George Trinka

Here's another in the series of informative booklets put out by George Trinka.

Tesla was one of the inventors of radio whether he (or you) knew it or not. Wireless transmission of power is really no mystery. It's the whole premise upon which radio works.

Trinka walks you through Tesla's experiments and inventions and shows you the connection with radio. The author will show you his experimental spark-gap transmitter (which can get you into real trouble with the FCC), a push-pull tube transmitter, and more.

You'll investigate low-frequency transmission (VLF), transmission through the ground, and more. You'll get details on Tesla's radio control boat, later regenerative receivers, modern publica-

tions that explore license-free VLF transmission and reception, aerial capacity and more much.

You get a load of fascinating information in a small, low-cost booklet. Just the references to other publications, in itself, makes this publication worth having. For instance, I've had a lot of fun exploring the mysterious VLF wave-lengths, and you can, too. This publication can point you in the right direction.

Get a copy. Interesting. 7 x 8 1/2 stapled booklet
No. 3004

\$6.50

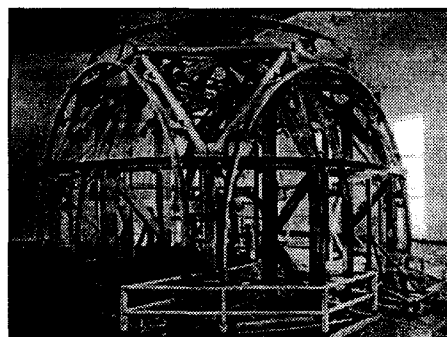
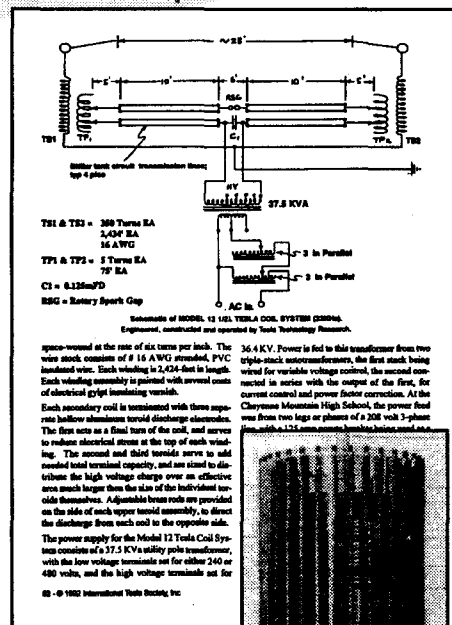
1992 Tesla Symposium

PROCEEDINGS OF THE 1992 INTERNATIONAL TESLA SYMPOSIUM
edited by S R Elswick

More reports from the July 92 symposium held at Colorado Springs.

You get the The Secret History of Wireless Communication, Dr. Mahlon Loomis: Discoverer of RF Communication; Experiments of Kristian Birkeland; Practical Construction and Testing of Tesla Coils; Design & Construction of 1/2-Wave Tesla Coil; Tesla and the Magnifying Transmitter; The Black Hole Antenna; Tesla Coil Instrumentation; A New Tesla Coil Design Approach; The Energy Conservator Method; Electrostatics: A Key to Free Energy; Tesla Technology Research Results; The LaserCel; Harnessing the Wheelwork of Nature; Progress in Zero-Point Energy Research; NonHertzian Effects on the Atomic Spectra of Water; Electromagnetic Energy from Antennas to Atoms; and Thoughts on Tesla's Particle Beam Technology.

More very unusual material material! The



Tesla and history material looks good to me, but I think a couple of the other authors would probably do better research if they were on lithium! Something here for everyone interested in high voltage, Tesla, and fringe science. Consider it. 8 1/2 x 11 hardcover 200 pages
No. 3028

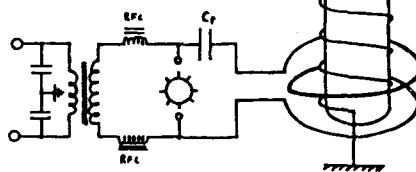
\$49.95

1988 TESLA SYMPOSIUM

PROCEEDINGS OF THE 1988 INTERNATIONAL TESLA SYMPOSIUM
edited by S. R. Elswick

Every year in Colorado, Tesla fans gather for a symposium to swap information. Here, in one convenient volume, are the papers presented at the 1988 meeting.

Chapters are collections of papers on a particular topic: Tesla history, Tesla coils, geophysical effects, electromagnetics, energy research, and gravitics. You get the Great AC/DC War, Tesla's Contributions to Electrotherapy, History of Laser Particle Beam Weapons, Tesla Coil - An RF Power Processing Tutorial for Engineers, Computer Simulation & Experimental Verification of Tesla High Voltage Machines, Earth-Ionosphere Cavity Magnetic Field Spectra in the 3-30 hz Band, Demonstrating A Zero-point Energy Coher-

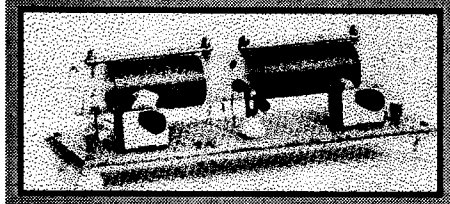
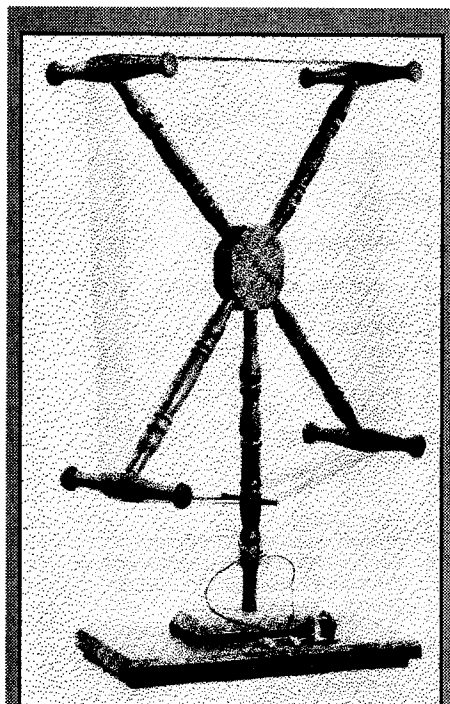


ence, Phenomenon of Electric Charge Generation by Space Rotation, Studies on Rotation Leading to the "N" Machine, Recent Developments of Levitation, Maxwell's Lost Unified Field Theory, and ten more! Although not heavily illustrated, you do get a number of drawings, circuits, charts, and there is plenty of math in places.

This is an unusual book, to say the least. It is a must-have for Tesla fanatics, anti-gravity people, perpetual motion people, and the fringe-science crowd in the general. I can't tell where the hard science ends and the speculation and alternate science theory sets in. So you know it's unusual! It's expensive, but worth having. Consider it carefully.
8 1/2 x 11 hardcover about 320 pages
No. 385

\$49.95

Ancient Radio Apparatus



Radios That Work For Free! Build a Crystal Set!

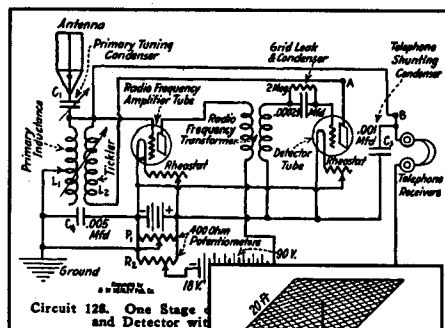
RADIOS THAT WORK FOR FREE

by K.E. Edwards

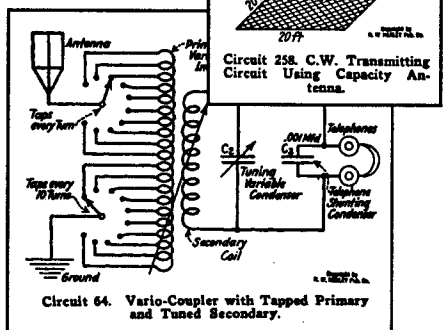
Build yourself a crystal set! You'll be shown everything you need to know - from materials to tools to techniques. Edwards will show you how to build "hot-rod" crystal sets with fancy features that can outperform the old oatmeal box versions, but are still simple. If you've never built anything electronic at any time but would like to try, this is a great place to start. This book has become a classic in its field, and it gives me a good feeling. I think you'll like it, too. 5 1/2 x 8 1/2 softcover 138 pages — well illustrated

No. 314

\$9.95



Crystal sets, regeneratives, heterodynes, transmitters, more!



HENLEY'S 222 RADIO CIRCUIT DESIGNS
by Anderson, Mills, & Lewis

Wow! You get loads of circuits on all kinds of 1924 radio equipment. For instance, chapter six presents 25 different schematics for the basic crystal set using every conceivable type of loading and tuning arrangement.

Chapter seven launches the reader into vacuum tube detectors some with even more incredible tuning arrangements. After chap-

222 Great Radio Circuits!

ter eight on audio amplifiers comes chapter nine on miscellaneous circuits which include ultra-audio receiver, Reinartz tuner with RF, detection and audio, one-tube reflex with crystal detector, three-tube reflex with RF transformers, inverse reflex, CW receiver with BFO, three-tube neutrodyne, counter EMF circuits, Cockaday receiver, Bishop super-regenerative receiver, many others. The final section of circuit diagrams reveals designs for spark, CW, modulated CW and AM transmitters.

Relive the days of radio when circuits were simple and components were hot and heavy. Absolutely great circuit book! Great fun. Order a copy. 5 1/2 x 8 1/2 softcover 271 pages

No. 20323

\$11.95



Old Crystals!

CRYSTAL CLEAR
Vintage American Crystal Sets, Crystal Detectors, and Crystals
by Maurice L Sievers

If you haven't heard, radio collecting is hot. And some of the most desirable sets are crystal radios. This is an encyclopedia providing info on 573 vintage xtal sets, 341 xtal detectors, and 207 xtals. You get 750 illustrations including photos of the sets themselves, old ads, even photos from manufacturer's catalogs. You get tables of manufacturers, charts of sets, the years they were made, and on and on.

If you collect, you must have this. If you like to build replicas of old equipment or restore old sets, you'll find this fascinating as well. It's a big book, jam-packed with old xtal radios. Fun reading. Expensive but good. Consider it carefully. 8 1/2 x 11 paperback 282 pages

No. 3023

\$29.95



CRYSTAL SET SOCIETY

REPRINTS FROM JULY 91 TO MAY 92
by Phil Anderson, W0XI

Radio can't get any simpler than crystal sets! Anyone can build one! But what do you do after you've wrapped an oatmeal box with wire? Here's your answer.

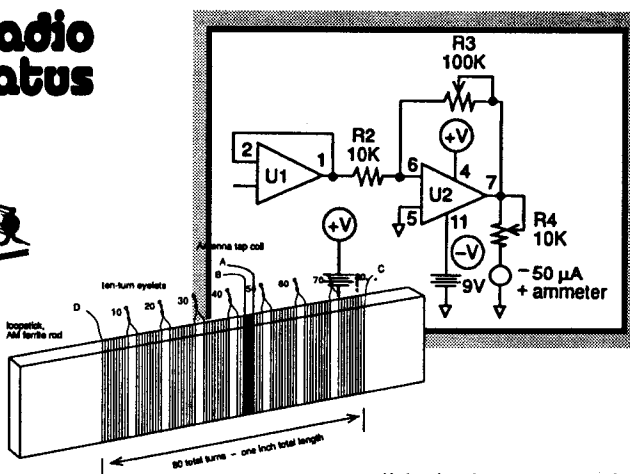
In July 1991 Phil Anderson from Lawrence, Kansas launched "The XTAL Set Society". You should have signed up. But you still can. And! You can find out what you missed by ordering a copy of this reprint of his newsletters for the first year. If you're into crystal sets, you'll find this interesting reading.

You get articles on building a basic field strength meter, a shortwave crystal set, "Why Did Those 1920s Crystal Sets Work Anyway?", a bare bones crystal set, an FM crystal set, a five part compression-capacitor crystal set (with part sources), a list of early articles on crystal sets, a toroidal crystal set, matching your antenna to your set for maximum signal reception, detector analysis, a 20 part crystal set, and other bits and pieces.

THE CRYSTAL SET HANDBOOK (VOL 3) by Philip Anderson

Volume 3 of the Xtal Set Society Newsletter has been reprinted in the first three chapters. Topics covered include the Tikker Detector, shortwave crystal sets, the simplest crystal set, circuit alternatives, vendors and more.

Starting with chapter four you get basic essential background information on coil inductance formulas, coil 'Q' and coil capacitance, detector loading, matching techniques for maximum earphone volume, and advanced matching. After a couple of wire tables and values, you get an extensive bibliography on crystal set books and magazine articles, some old and some relatively recent. You'll



Yes, you'll find info on joining the society. Crystal sets are fascinating because of the challenge of getting more performance out of less hardware - a move from complexity to simplicity. That's a refreshing change! I think you'll find this quite interesting. Get a copy! 8 1/2 x 11 plastic spiral binding about 36 pages
No. 395

\$10.95

More! Volume 2!

XTAL SET SOCIETY VOL 2
by Phil Anderson W0XI

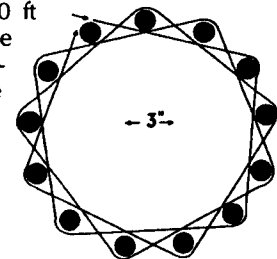
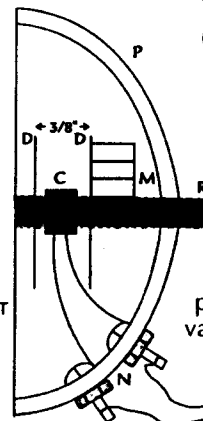
More interesting articles from July 92 to May 93 newsletters. Articles include: lead pencil detector, minimum detectable signal, detector biasing for improved sensitivity, double tuned circuits, universal crystal set, FM crystal sets, the electrolytic detector, the coherer revisited, Miller '595' Tuner revisited, and a galena detector from Italy, and more. Good reading. 8 1/2 x 11 plastic spiral binding 39 pages
No. 3003

\$10.95

New! Volume 4!

XTAL SET SOCIETY NEWSLETTER VOL 4
edited by Phil Anderson W0XI

More articles! From 1994, including crystal set drive 400 ft vertical, a portable crystal set, fox-hole razor blade set, two



Quaker Oats radios, home-brew headphones, basketweave coil, measuring coil capacitance, formula derivation, home-brew curve tracer, home-brew headphones, crystal earphones, ten best crystal circuits, and more.

Good stuff! 5 1/2 x 8 1/2 staple spine 86 pages
No. 3019

\$9.95

You can join the XTAL Set Society and get six issues of the newsletter for \$9.95, \$11.00 US for Canadians, and \$16.00 US outside the U.S.

THE XTAL SET SOCIETY
PO Box 3026
St Louis MO 63130

Tell 'em Lindsay sent ya...

CRYSTAL SET HANDBOOK (Newsletter Reprints Vol 3)

'detector assembly' Don't use a 1N914 silicon diode; it requires too strong a signal from your radio station. If you can't obtain a 1N34, ask your parts store clerk for a germanium diode; any of them will do nicely.

Figure 6: Crystal Set Plans

step 6. Solder one end of the detector and ground wire coming out of the bottom of your coil.

step 7. Solder the other end of the detector and ground wire coming out of the top of your coil. This connection later if need be.

flows through the receiving telephone. These pulses at each rapid rate that the diaphragm of is either held down continuously or repeated resulting in no sound except at the beginning of flow. To make undamped oscillations audible,

Figure 1-4: Tikker Receiver

compelled to break up the oscillations of transmitter or receiver into groups suitable for response in the hand telephone or to supply of the receiver to make them audible. The receiver is put in use [that work] are: (1) The Poulsen Tikker or chopper; (2) The heterodyne system; (3) The Goldschmidt Tone

strong enough and if proper filtering is carried out. The crystal set developing the power must filter out the music or voice to provide a steady DC supply for the translator amplifier. The listening crystal set then simply does its normal job (tuning and selectivity), and supplies an audio signal to the amplifier which drives a speaker. Mr. Osborne reports that his local AM station was capable of providing 1 milliwatt (mW) of current into a 5000 ohm load (that's 5 milliwatts of power), sufficient to operate a simple translator amplifier and speaker.

Figure 1-1: Self-Powered Receiver

In Figures 1-1, the bottom crystal set is the DC supply. Capacitor C2 needs to be 10 uF or so to filter out modulation coming from the local AM station, and the antenna is tightly coupled. The corresponding detector capacitor for the 'Tikker' set is labeled C1; its value is the usual .001 uF (1000 pF). Transformer T1 provides a match between the detector output and the low impedance transmitter load. The antenna is loosely coupled, preserving selectivity.

also learn how to join the Society, and you'll find out that the author has a PhD in engineering and is one of the founders of Kantronics.

With this book you'll learn how to build a crystal radio even if you've never done it. If you have built one, you'll want this book because it will show you how to maximize performance. Remember, the simpler the design, the more care that must go into each component if you're to get top rate performance.

Interesting. If you're a crystal radio nut, get a copy of this. You'll learn simple testing and design techniques that engineers use. Great accurate information. Consider it. 5 1/2 x 8 1/2 softcover 133 pages
No. 3009

\$10.95

Ancient Radio Apparatus

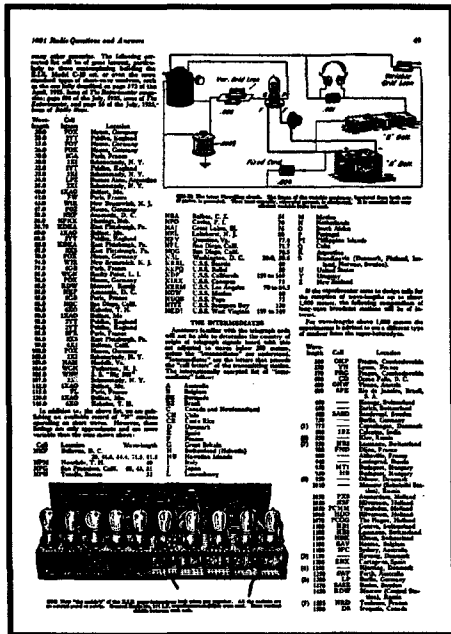


1001 RADIO QUESTIONS AND ANSWERS - 1926

edited by Leon L. Adelman
reprinted by Lindsay Publications

In 1926 the best questions to the editors of Radio News Magazine and their answers were compiled into this enjoyable book. Chapters include: miscellaneous circuits, popular circuits, tube data, transmitting circuits, current supply, amplifiers, antennae, and miscellaneous apparatus.

You'll see circuits for adding RF stages to regenerative receivers, circuits to sharpen tuning, a 5-tube 2-dial TRF set, circuits for cascaded regeneration, and dozens of other ideas. You get discussions concerning the use of Litzendraht wire for coil winding, new fangled superheterodynes, wave-trap design, and the Universal Plio-6 receiver capable of handling everything from 35 to 3,500 meter wavelengths. And there's so much more.



1001 Radio Questions & Answers

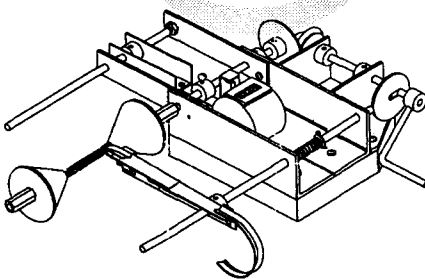
You get page after page of radio diagrams, most of them related to receiving. The original is on cheap disintegrating paper. A couple of pages actually have small holes (imagination will be required during reading). Fascinating reading. Order a copy today!

8 1/2 x 11 softcover 96 pages

No. 21001

\$8.95

Build a COIL WINDER



BUILD A UNIVERSAL COIL WINDING MACHINE

by David J. Gingery

Just a few years ago, experimenters could buy two or three simple hand-operated affordable coil winders. I haven't seen any of them advertised lately. You certainly can wind coils by hand, but if you're going to do

any serious experimenting with old-time shortwave circuits, a coil winder is worth having.

Dave will show you how to build a coil winder from common, easily-obtained materials. Although it may look complex, it really is not. You'll find that it is easy to build. You don't need to be a mechanical genius, or need expensive tools. Yet this amazing little machine will professionally wind universal and honey-comb coils, single layer and multi-layer solenoids, close-wound and space wound coils, and even pi-spaced coils such as used for RF chokes and transformers.

This is a typical Gingery how-to book—loaded with illustrations, dimensions, and step-by-step text that is so detailed it almost holds your hand! Excellent publication. A serious experimenter should have a copy of this and the winder it describes. Order a copy. It's excellent. 8 1/2 x 11 booklet 24 pages

No. 386

\$8.95

35' Radio Tower!

BUILD A 35' FREE STANDING TILT OVER ANTENNA TOWER

by David J. Gingery

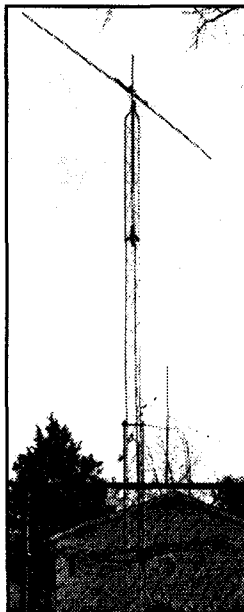
Once you have your ham license you'll want to hoist a beam high above the house. When you see what towers cost, you'll want to build your own. Let master craftsman, expert-of-the-cheap Dave Gingery how he built a sturdy, reliable tower just a few years ago for less than \$100. Dave has a simple dipole on it. He says he hasn't calculated the wind loading but it should easily handle a tri-band. If you're thinking about a huge cubical quad from days past, that might be pushing it since this tower has no guy wires to strangle you when you mow the grass.

He'll show you to build the jigs to bend up the bracing and align the members while you weld it up. Yes, you have to be able to weld, or know someone who can. Materials used include water pipe, rebar, conduit, a boat trailer winch and assorted bolts.

Build a tower and get your antenna in the air. Or use it to fly a jolly roger and scare your neighbors away. Or next time your mother-in-law starts mouthing off hoist her to the top and let the birds roost on her (or worse)!

Typical Gingery quality. Detailed, proven how-to, loaded with all necessary drawings and photos. Not something you'll find every day. Get a copy! 8 1/2 x 11 booklet 24 pages

No. 3012 \$8.95

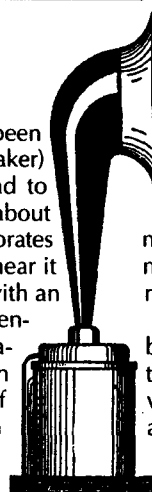


LOUD TALKERS - HOW TO BUILD THEM

by H. Winfield Secor

reprinted by Lindsay Publications

You probably wouldn't have been able to afford a loud talker (loud speaker) back in '23. You would have had to build one. Actually this is a book about winding the electromagnetic that vibrates a diaphragm violently enough to hear it across the room when amplified with an old-fashioned horn. Sections are entitled loud-talker field frame, the diaphragm and moving coil, data on loud-talkers actually built, details of step-down transformer, connection to vacuum-tube amplifier set, power amplifier circuit, bi-polar loudtalker



Build an Ancient Loudspeaker!

made from odd parts, building the electro-magnet, and more. Unfortunately, there is nothing of significance on the horn.

It's just a little booklet. The original is brittle and yellow, having been printed on the cheapest paper. It's interesting. Rarely will you find anything on speakers. Worth adding to your radio collection. Order a

copy! 5x7 booklet 48 pages

No. 20803

\$3.50



**OFFICIAL 1934
SHORT WAVE RADIO MANUAL**
edited by Hugo Gernsback
& H W Secor
new chapter by T. J. Lindsay

Build simple, high-performance oldtimeA shortwaver radios! You can. All of the secrets are here: the circuit diagrams, parts layout, coil specifications, construction details, operation hints, and much more.

Back in the 20's and 30's the only low-cost way of listening in on the newly discovered and fascinating shortwave radio frequencies was to build a set. Shortwave construction magazines flourished, even during the depression.

This is a compilation of construction articles from "Short Wave Craft" magazine. It's wall-to-wall how-to.

SECRETS OF OLD SETS! At the rear of the book are circuit diagrams, photographs, and design secrets of all shortwave receivers being manufactured in 1934 including some of the most famous: SW-58, the SW-5 "Thrill Box", the deForest KR-1, the Hammurand "Comet Pro", and many more.

BUILD SOLID-STATE SETS! You'll find

that all the circuits use tubes since transistors hadn't yet been invented. And you'll also find that the original tubes listed are usually difficult to find today. Included is a new chapter showing how you can use transistors to replace hard-to-find vacuum tubes. You'll even see the circuit that was lashed together on a table top one night using junk box parts, one of my wife's hair curlers and alligator clips. When I hooked it up to an antenna strung across the basement ceiling and attached a 9 volt battery, signals started pop-

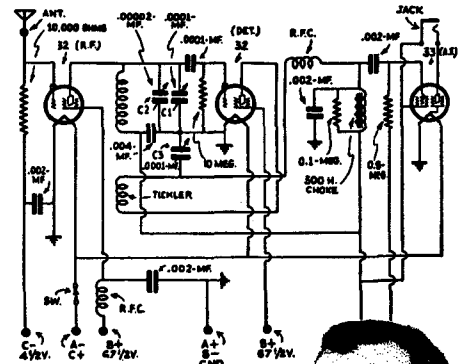
Official 1934 Shortwave Radio Manual

**Incredible How-To,
Reference, and a special new
chapter on solid-state sets!**

ping in like crazy. In a couple of minutes I heard an urgent message from a ship's captain off Seattle asking for a navigator to help him through shallow water. Not bad, considering I live near Chicago!

HOT PERFORMERS! These small regenerative receivers are extremely simple, but do they ever perform! I've built dozens of them, and they never fail to amaze me! Even master machinist, Dave Gingery has built these sets.

This is the nuts for the experimenter, the



survivalist who is concerned about basic communication, shortwave listeners, ham radio operators who collect old receivers, and just about anyone interested in old-time radio.

Great book. Best old-time radio book I've ever seen. And I look at every one I can get my hands on. Consider it carefully. Even if you never build one of these radios, you'll get hours of enjoyable reading out of this book. Top rate. Order a copy.

8 1/2 x 11 softcover 260 pages
No. 4643

\$15.95

the book. We agree perfectly upon the effectiveness of these devices. Indeed, it was the inception of this that first made practical, long-distance radio possible. A good, properly used regenerative detector may develop a gain of 30 decibels or more, equal to that of three non-regenerative cascaded stages.

But, as you know, one always gets only what one pays for. Buy a fancy, store bought receiver and you pay for results with money. Build a "homebrew" regenerative job, and you pay for it in the effort of building and operating it with patience and care, two words that most people scarcely know any more...

It has been my experience that the good old vacuum tube still makes the most effective regenerative detector, particularly the RF pentode. Next best, in the solid state line is the junction FET, as you suggest. But it takes two of these to do the job of one good pentode tube. However, all the FETs need is a nine-volt battery, no power supply required, a real advantage as you say.

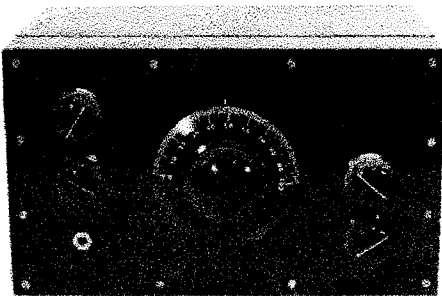
Through the years I've found that the "Throttle Capacitor" mode of regeneration control, along with a properly adjusted tickler coil (as upon page 56, 58, 62, 66 and 259 of your book) is by all odds the smoothest and most effective regeneration control method. For pentode tubes, of course, a

pot in the screen circuit is ok, too. But, in general, the capacitor is my favorite - never critical, noisy or "jumpy", I've found. I've also found that when a tube is used, the higher the gridleak resistor the better (my best job used a 20 megohm leak). But for FETs, one megohm seems about right. (Too low and the sensitivity is down. Too high and the thing gets "fussy.") I would disagree, but not argue with, your theory of audio feedback through the power-source. I would feel that the inductive reactive effect of the audio transformer, or choke is the culprit. Pure resistance coupling does not develop "fringe howl," for instance. Also I find that with most FETs, a 1000 ohm source resistor is better than the 2700 ohm one that you suggest in the diagram at the top of page 247.

Building and using regenerative receivers continues to be a pleasurable experience for me. I have tried to get some young fellows of my acquaintance into this sort of activity with negligible success; they'd rather spend daddy's money upon fancy, store-bought gear. They do not realize how much honest education and real, challenging adventure they're depriving themselves of by that attitude. Too bad...

You are doing your part to keep the great self-education process alive and well. Keep it up!

C. F. "Rock" Rockey



Build Solid-State Regenerative Receivers!

Dear Mr. Lindsay:

A good friend of mine has sent me a copy of your re-done Short Wave Radio Manual of 1934, the year, incidentally, that I first received my amateur license. So it takes me back most pleasantly to the days of my youth. That I have enjoyed perusing it very much goes without saying, I believe.

It was also pleasant to read your commentary upon building regenerative receivers at the back of

Ancient Radio Apparatus



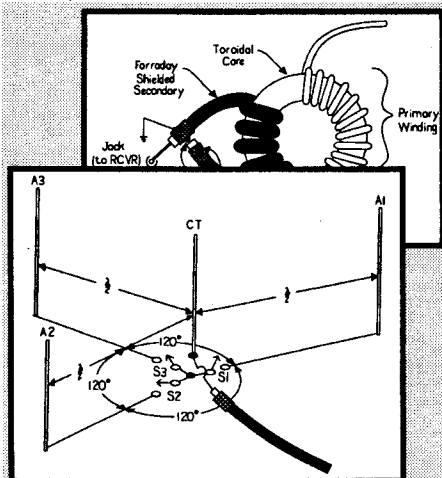
RECEIVING ANTENNA HANDBOOK

by Joe Carr

You "ain't gonna hear nothing" from your million dollar shortwave receiver unless you give it signals from a top-rate antenna. Get hot! Build a good antenna.

Here's a great book that covers receiving antennas from basics to the unusual. It's well illustrated and easy-to-read, and will give you plenty of new ideas to try.

Chapters include preliminaries, real-world antennas, antenna and lightning protection grounds, transmission lines, some quick and dirty antennas, the dipole and its relatives, longwire antennas, other wire antennas, vertical antennas, directional antennas, small loop receiving antennas, low frequency antennas, and odds and ends.



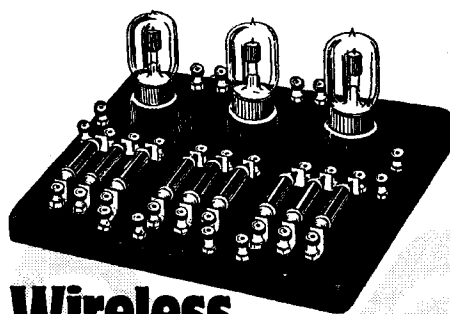
Antenna Handbook

Within the chapters you'll learn about stealth antennas for apartment dwellers, helically wound antennas, discones, counterpoise grounds for verticals, a ferriloop antenna, parasitic beams, the Thorne array, longwire termination resistors, steerable notch Beverage antennas, rhombics, trap dipoles and on and on.

You get loads of practical information from construction formulas and directional plots, to schematics for RF amps, electrical equivalent diagrams and construction details. The book is on the expensive side but delivers more useful receiving antenna information than I've seen in a single book in a long time. Order a copy. 8 1/2 x 11 softcover 189 pages

No. 399

\$19.95



Wireless Experimenter's Manual

"Modern" 1920 Technology
Crystal Sets, Regens, More!

WIRELESS EXPERIMENTER'S MANUAL

by Elmer E. Bucher

reprinted by Lindsay Publications

Bucher showed 1920 radio enthusiasts how to build equipment and operate it. You can relive those days!

You get chapters on advice to the amateur, formation of a radio club, principles of the radio transmitter, construction of transmitters, construction of aerials and masts, tuners and detectors, vacuum tube detector and amplifier, undamped wave receivers, undamped wave transmitters, cabinet receivers and accessories, design of wavemeters, closed coil aerials, Weagant static eliminator, and long distance relays by radio.

You get everything from early spark gap transmitters to continuous wave transmitters and radio telephone transmitters. You get great construction how-to on winding power transformers, coil winding machines, oscillation transformers, high-voltage condensers, rotary spark gaps, making a key, building receivers with variometers, and home-made crystal detectors.

But this is

also extremely "modern" (for 1920).

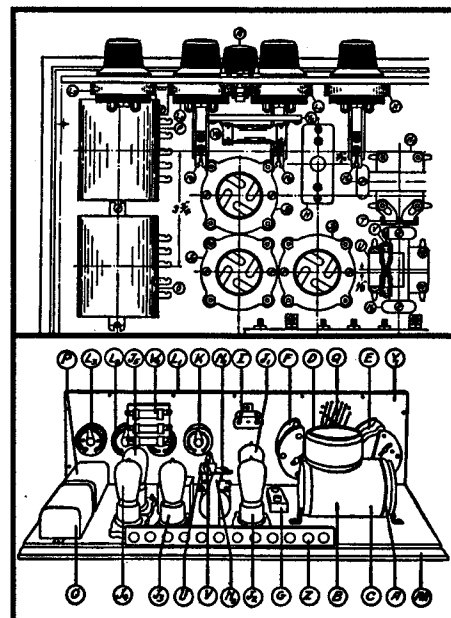
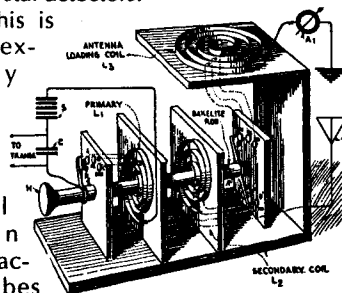
You'll learn about vacuum tubes and their use

as replacements for crystals and as amplifiers. You'll even get one of the very earliest circuits for Armstrong's original regenerative receivers. And on and on it goes.

Great book! Fun reading. Incredibly good if you want to build crystal sets, Tesla coils, transformers, repair old radios, or build reproductions of antique equipment. Countless incredible drawings. Get a copy. 5 1/2 x 8 1/2 softcover 350 pages

No. 20854

\$13.95



Early Radio Plans!

POPULAR RADIO HANDBOOK NO. 1 -
How to Build Your Radio Receiver

edited by Banning & Cockaday

reprinted by Lindsay Publications

In 1924 the people at Popular Radio published their magazine to cater to the exploding interest in shortwave radio! What you get here are the best construction articles from that magazine.

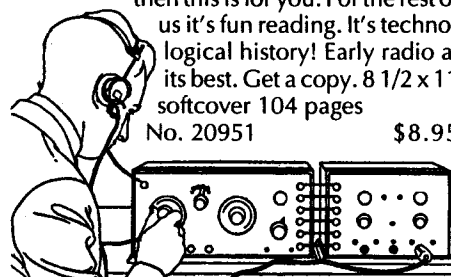
Chapters include: how to read a radio diagram, how to put up an outdoor receiving antenna, how to build an efficient NBS crystal receiver, how to build the Haynes DX receiver, how to build a two-stage audio-frequency amplifier, how to build the four-circuit tuner, how to build a tuned radio-frequency receiver, how to build the improved four-circuit tuner, how to improve the three-tube four-circuit tuner, how to build the new regenerative super-heterodyne receiver, and broadcasting stations in the U.S. of 50-watt power or more.

This is old time stuff with four-prong tubes, coupling controlled by moving the coils, bread-board layouts, and 45 volt "B" batteries. You get drilling layouts for the Bakelite panels, dimensions for the cabinets, wiring instructions and more. This is one of the best early practical how-to books I've seen

If you have radios to restore, or have old parts you'd love to lash up into a working set, then this is for you. For the rest of us it's fun reading. It's technological history! Early radio at its best. Get a copy. 8 1/2 x 11 softcover 104 pages

No. 20951

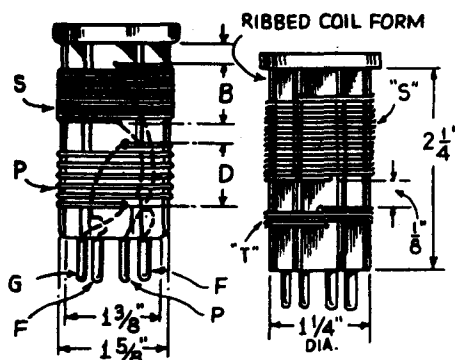
\$8.95



Ancient Radio Apparatus



1937 SHORTWAVE COIL DATA



SHORTWAVE COIL DATA BOOK

by Radio Publications

Coils! Coils! Coils! They're the heart and soul of shortwave radio receivers and transmitters. A properly wound low-loss coil can make the difference between having an average piece of gear or a hot performer. And it seems the simpler the receiver, the more important the coils.

Here in one jam-packed booklet from 1937 are hints, tips, charts to help the shortwave radio builder design and build the best coils possible. You get informative articles from Gernsback magazines such as

- Coil Data for TRF Receivers
- The One Tube Oscillodyne Coils
- The Mono-Coil
- 2 Winding Coils for 10-500 Meters
- Coils for a 3 Tube Band Spreader
- and many others

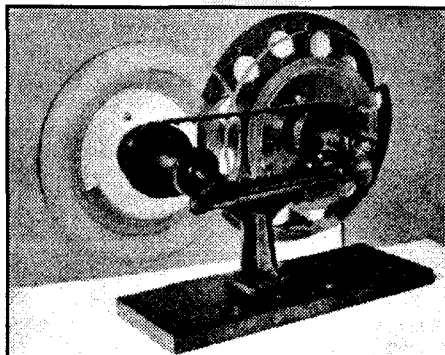
You also get nine different circuit diagrams for the "Most Popular SW Tuning Circuits" and five "Transmitting Circuits employing the coils described".

This is highly specialized information on just one important topic essential to successful radio construction. It's only 16 pages but it's quite inexpensive and delivers. Get a copy! 8 1/2 x 11 booklet 16 pages

No. 830

\$3.00

Vision by Radio

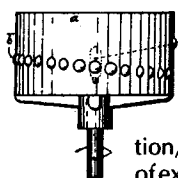


VISION BY RADIO

Radio Photographs Radio Photograms

by C. Francis Jenkins

Go back to 1925 and discover the earliest fax machines and televisions! This is an amazing book! You get details on the electrical components that existed at the time, the tests that had been tried, correspondence from famous people, and historical notes.



The most interesting section, I think, is illustrated review of existing machines: Nipkow & Sutton, the Amstutz system, the

Electrograph, the Baker machine, the Dr. Korn Machine, the Rignoux and Fournier Scheme, the Belin machine, the AT&T machine, RCA's machine, the Braun Tube receiver, pictures by radio in natural colors (!), prismatic disc machines, the Jenkins prismatic ring, Jenkins synchronizing forks, Jenkins picture-strip machine, Jenkins Duplex machine, talking machine photograms, radio vision (television), Jenkins high speed camera, and more.

Obviously, this book was written and published to glorify Jenkins Laboratories Inc, but it delivers more photos, drawings, and patents on early fax and TV equipment than I've ever seen anywhere before.

Rare! Quality! The price we ask is a mere fraction of what you'd pay for an original if you could find one. Get a copy! 5 1/2 x 8 1/2 softcover 140 pages

No. 20200

\$9.95

Unusual Magic Catalog!

A new and unusual magic catalog has been issued by a couple of technical wizards who have contributed to this catalog. It features flashpaper, extremely strong magnets, invisible super strong filaments, invisible marking fluid, and other props. And a video catalog is available. Send \$1 to

Roddy's Catalog of Magic,
3283 Belvedere Dept L2,
Riverside CA 92507-3234



Experimental Television

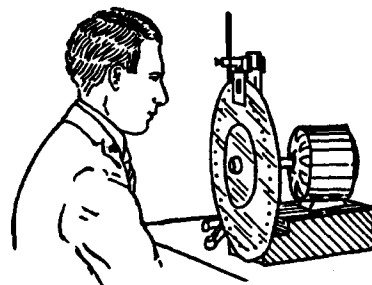
"a series of simple experiments with television apparatus and also how to make a complete home television transmitter and television receiver."

EXPERIMENTAL TELEVISION

by A Frederick Collins

reprinted by Lindsay Publications

Build yourself a television station! No, not with iconoscopes, vidicons, nor CCD's, but with Nipkow scanning disks. Go back to 1932 and let Collins show you how.



Chapters include experiments with light, with vision, with the scanning disk, with the photo-electric cell, with the amplifier tube, with glow tubes and neon lamps, with electric waves, with synchronism, with cathode rays and the oscillograph tube, how to make a television transmitter, and how to make a television receiver. And it comes complete with 185 illustrations by the author himself.

reinforce your reputation as the neighborhood mad scientist!

You'll learn how to fabricate the scanning discs, synchronize them, make a selenium cell (probably with dangerous, toxic chemicals), use synchronous motors, build vacuum tube circuits and much more. Although Collins is known for his books for boys, because of the complexity of this equipment, this book is aimed at readers of all ages.

If you're lazy (or just want top rate quality), you can buy a Camcorder. But if you want to impress your neighbors and reinforce your reputation for being the local mad scientist, build this 1932 vintage TV station. You'll hear- "How did you know how to do that?" Don't tell them you read it in a book! Make 'em think you're Tesla reincarnated.

Fascinating book. It's hard to believe that TV engineers even seriously considered mechanical scanning. Rare book. If you're lucky enough to find an original of this, it will cost you many times what I'm asking. Worth having. Order a copy today. 5 1/2 x 8 1/2 softcover 313 pages

No. 20790

\$14.95

Ancient Radio Apparatus

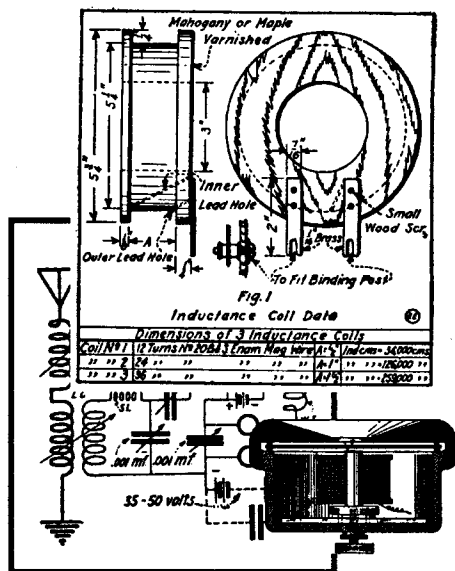


THE HOW AND WHY OF RADIO APPARATUS

by H. W. Secor, E.E.

reprinted by Lindsay Publications

Back in 1922 when shortwaves were the newest high tech frontier being explored. Secor set out to explain the how-to necessary for his readers to build radios and get in on the fun.



Radio Apparatus!

Chapters include: The Induction Coil, The Transformer, Radio Transmitting Condensers, Spark Gaps, Radio Transmitting Inductances, Radio Receiving Tuners, Radio Receiving Condensers, Detectors, Telephone Receivers, Radio Amplifiers, How to Make and Use a Direct-Reading Wave Meter and Decimeter, Radio Antenna Construction, The Calculation and Measurement of Inductance.

This is great stuff for experimenters old and new. You get some quaint stuff on spark gap sets you probably won't want to duplicate. But the direct reading wave meter and measurement of inductance could be quite valuable even today, especially for Tesla coil builders. Lot's of other good stuff.

"Crawl" inside the head of the old-time builders and learn how they saw the new field of electronics opening up. I like it. I think you will, too. Get a copy! 6x9 softcover 160 pages

No. 21133

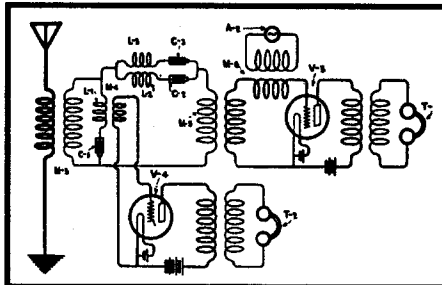
\$8.95

VACUUM TUBES IN WIRELESS COMMUNICATION

by Elmer E Bucher

The description on the title page says it all.

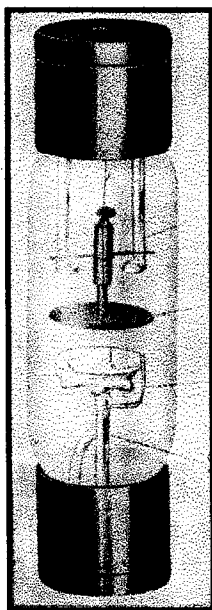
"This volume shows over 140 different circuits for the practical use of Vacuum Tubes as Detectors, Radio or Audio Frequency Amplifiers, Regenerative Receivers, Beat Receivers, and Generators of Radio Frequency Currents.



Vacuum Tubes in Wireless Communication

The Two, Three and Four Element Oscillation Valves are described in detail together with the circuits used in daily practice. Cascade Amplifiers of the latest type for long distance reception are comprehensively treated. Up-to-date circuits for long distance receptions are comprehensively treated..."

This 1919 handbook is almost all circuit diagrams, many being brand new to me. How about regenerative cascade systems, a modified Weagant Beat receiver, Espenschied's Duplex Wireless Telephone



system, or circuits using unusual tubes such as the Dynatron, the Pliodynatron, the Kenotron, or the Plotron? Back then, this book described the cutting of technology as radio began to move away from spark gap code transmission to continuous wave methods using tubes.

This is a great collection of very unusual radio history — something you don't find everyday.

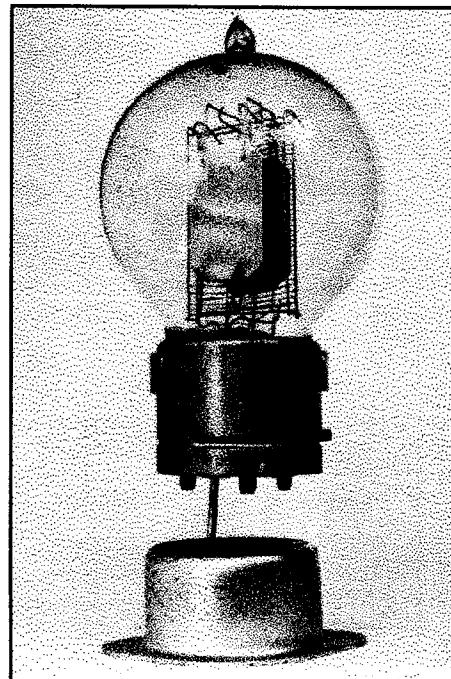
'Course I know a lot of boneheads who would be just as happy if they NEVER found it any day. But

don't you be one of them. Consider this carefully. Its unusual.

5 1/2 x 8 1/2 softcover 208 pages

No. 20412

\$12.95



Tubes! Valves!

70 YEARS OF RADIO TUBES AND VALVES
A Guide for Electronic Engineers,
Historians, and Collectors

by John W Stokes

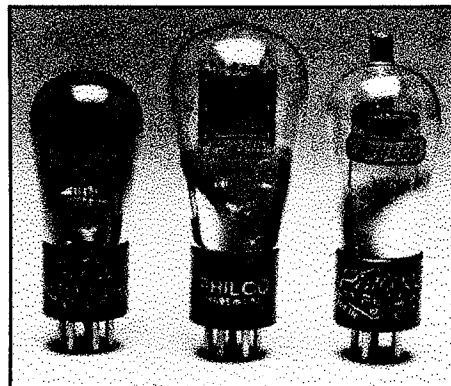
I just love tubes. They're mysterious bulbs of glass loaded with delicate metal sculptures inside, that light up to a brilliance, and give off more heat than a toaster! And oh, yes! They amplify and rectify electricity.

Tubes are getting scarce. They're something to start collecting if you haven't already. This book will open up the fascinating history of tubes to you. You'll see them all from the UX-201 (and earlier) to my old friends the 6C4 triode, the 6SN7 double triode, or a 12AU7. Gawd! I must have a thousand tubes stashed in the warehouse!

You'll meet manufacturers like DeForest, Ken Rad, Mullard, and others. You'll see over 750 tubes pictured, old ads, and more. Just like the title says, this is a great book for collectors, historians and engineers. And radio nuts like us! Get a copy. I think you'll like it. 8 1/2 x 11 softcover 247 pages

No. 3024

\$25.95



Ancient Radio Apparatus



GERNSBACK'S EDUCATIONAL LIBRARY reprinted by Lindsay Publications

In the late 1930's Hugo Gernsback's Radio Publications company in New York published a series of ten shortwave radio booklets to satisfy the public's growing interest in building and operating shortwave sets.

Each booklet is 32 pages in length, is well illustrated, and has a brilliant yellow cover. Each covers a different topic from radio construction to electrical experiments to television.

You'll find these little booklets fascinating reading, full of ideas, and you'll find each to be a slice of early radio history back when radios were built on breadboards with handtools instead of printed circuits.

The original booklets were printed during the Great Depression on inferior quality paper and are now quite rare. But you can get high quality copies on quality paper and enjoy them again.

Order a set today!

NO. 1 HOW TO BUILD 4 DOERLE SHORTWAVE SETS

Build the 2-tube 12,500 mil "Doerle" shortwave receiver and the 3-tube signal gripper. You then get instructions on modifying these two basic radios into a bandsread receiver and an 110 VAC operated version.

No. 820 \$2.25

NO. 2 HOW TO MAKE MOST POPULAR ALL WAVE 1 AND 2 TUBE RECEIVERS

Build a Megadyne one-tube loudspeaker set, a beginner's 1 tube AC-DC set, a four-in-two all-wave all electric 2-tube set, a super-regenerative single-tube loudspeaker set, a portable 2-tube battery loudspeaker receiver, and a beginners' one-tube all-wave battery set.

No. 821 \$2.25

NO. 3 ALTERNATING CURRENT FOR BEGINNERS

Study theory, and perform home experiments with AC such as lighting a lamp induction, making a simple electric horn, watch demagnetizer, simple test for motor armature defects, bell-ringing transformer, charging storage batteries from an AC source, simple test for condensers, AC electromagnets, magnetic levitation, simple motors, lamp dimmer, and more.

No. 822 \$2.25

NO. 4 ALL ABOUT AERIALS

Part one covers receiving antennas with notes on tuned antennas, broadcast antennas, low impedance transmission line, doublets for shortwave, transposed leadin, a SW antenna tuner, antenna construction, a double-doublet all-wave antenna, doublet installations and more. Part II covers transmitting antennas for amateur stations including the half-wave antenna, output matching circuits, construction, the Zepp, a counterpoise system, and more.

No. 823 \$2.25

tions, and equivalent symbols of radio components. Then you'll see circuit diagrams for a variety of circuits from crystal sets to multi-tube radios as well as the physical layout they represent. Basic information, but essential to radio newcomers in 1938.

No. 826 \$2.25

NO. 8 RADIO FOR BEGINNERS

Learn about wave analogies, principles of transmitting, and receiving principles. A lengthy section on receiving instruments will show you how tank circuits tune to particular wavelengths and how tubes and other components perform their jobs. You also get a section on antennas and aerials. Another essential booklet for the beginner.

No. 827 \$2.25



NO. 9 SIMPLE ELECTRICAL EXPERIMENTS

Build a galvanometer, experimental magnet, simple motor, electric shocker, microphone, arc lamp, electric furnace, arc welder, a home-made key, batteryless flashlight and more. Perform tricks with telephone receivers and experiments with lamps, neon lamps, condensers, talking condensers, static electricity, and more. You'll find a brief section on making a magnet, on rheostats and how to use them, rectifiers, simple

GERNSBACK'S Educational Library

NO. 5 BEGINNERS' RADIO DICTIONARY

A complete 32 page dictionary for beginners. Obviously, most the terms are still in use, but some are not. Brief definitions and a number of illustrations are provided. Learn about acceptors, counterpoise, ferromagnetic modulation, interrupter, keying flicker, strays, water rheostat and much more.

No. 824 \$2.25

NO. 6 HOW TO HAVE FUN WITH RADIO

Unusual experiments! Try the "Talking Newspaper" which is nothing more than a loudspeaker made from aluminum foil and newspapers! Also try talking gloves, radio electric chair (put a frying pan in your pants), visual music, dancing to silent music, musical and talking gadgets, the radio dancer, home broadcasting, the door that talked, and more!

No. 825 \$2.25

NO. 7 HOW TO READ RADIO DIAGRAMS

Learn how to translate radio diagrams into physical equipment. You get pictures, defini-

measuring instruments, heat or cold from junction of dissimilar metals, handy wire gauge, musical instruments, and more.

No. 828 \$2.25

NO. 10 TELEVISION

In 1938 this was high-tech electronics! You get a primer of television, including details on mirror scanning, Scopphony system, and movies for television. Study the kinescope or cathode ray tube and how the sweeping beam is synchronized. Learn about receiver antennas, how TV programs are broadcast, network TV, and even a Scopphony system for color television! Quite interesting.

No. 829 \$2.25

PACKAGE NUMBERS 1 THROUGH 5

Get all five for one lower price. Save \$1.30
No. 930 \$9.95

PACKAGE NUMBERS 6 THROUGH 10

Get all five for one low price. Save \$1.30.
No. 931 \$9.95

BEAT THE COPS

by Alex Carroll

From the back cover:

"Buy this book. It can save you a lot of money.

You will learn •how cops cheat on tickets to fill quotas... •how you can speed legally... •why you will probably never have to pay a photo radar ticket again... •how you can schedule a trial during an officer's vacation... •the name of an organization that will pay for your ticket... •why the safest speed on most roads is currently 10-15 mph faster than the speed limit... •how you can sneak by the new laser guns... •and much, much more."

T'aint no fun getting traffic tickets. And Carroll claims you can beat them. The backcover also says "Alex Carroll is an expert on tickets. In the past 10

BEAT THE COPS!



years he has helped hundreds of people fight their tickets. He has also nullified 10 tickets of his own. After spending countless hours in traffic courts..." What? Ten tickets?

Countless hours? Has this guy got a death wish or what?

If you're as big a traffic hot dog as the author, then you already know this stuff. But if you're like the rest of us, you get ticketed once in a blue moon. When you do, you'll realize that this book is much cheaper than a sharp lawyer and higher insurance rates. Order a couple of copies for your teenage son!

Unusual. The kind of book you hope you'll never need. Consider it. 5 1/2 x 8 1/2 softcover 120 pages

No. 6067

\$9.95

BUYING A CAR?

How to Stick It to the Dealer

BUYING YOUR NEXT CAR

How to Stick It to the Dealer

Before the Dealer Can Stick It to You

by J Michel White

"New or used, purchased or leased, here's an easy-to-use, step-by-step guide for winning the car-buying game. You'll learn how to: level the playing field, develop your own game plan, and win a fair deal on your own terms.

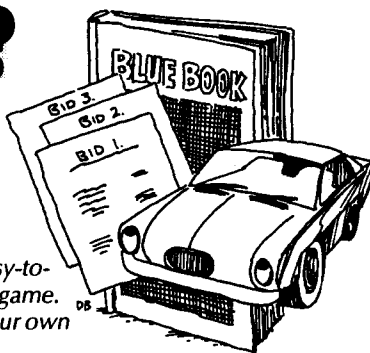
This indispensable book provides you with the all-important answers to questions like: How much does the dealer really pay for a car? How much can I really get for my trade-in? How do I know I'm getting the best deal? How can I turn the dealer's tricks to my advantage? Can I really afford the car I want? Should I consider leasing my next car? "

Gonna buy another car? Get hip! Do a better job this time negotiating for the best price, whether buying new or used. Or for that matter, even if you intend to buy a worn-out hulk or a confiscated luxury car at a government auction. The tips are here.

The author started out buying a '48 Plymouth when he was 15 years old, and has since owned more than 170 cars!! Needless to say, he has been a super car salesman, and he knows the tricks. Here, he'll teach them to you.

Get hip. Get a copy. The money you save could buy you a copy of every book in this catalog! We'd both like that! 5 1/2 x 8 1/2 softcover 138 pages No. 493

\$8.95



Fix Small Engines

HOW TO REPAIR BRIGGS & STRATTON ENGINES 2ND ED

by Paul Dempsey

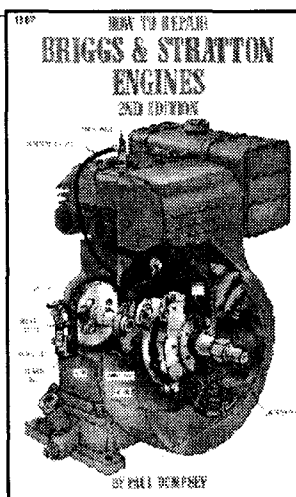
With this book and some scrounging you can recycle old Briggs & Stratton engines. Or you can keep your lawnmower going just one more year. Or build an emergency power plant. Or...

Chapters include: basics, ignition, carburetors, governors, starters, charging systems, and total rebuilding. This book is loaded with practical how-to: adjustments, troubleshooting, assembly diagrams, charts, hints and tips and all the rest.

B&S engines are common. It seems that you should be able to pick up junkers and combine the parts to get running engines at little cost. Good basic repair book. Get a copy. 5 1/2 x 8 1/2 softcover 190 pages

No. 1265

\$11.95



LINDSAY PUBLICATIONS INC. PO Box 538, Bradley IL 60915 • 815/935-5353

Truck Chassis Detailing

Spray EHV protectant directly onto the tires. The aggressive tread patterns on most off-road truck tires make it difficult to adequately cover the rubber with an applicator.

Burnish the protectant into the tires. This helps the protectant penetrate the surface of the tire and avoids a slippery "painted-on" look.

Clean the wheels as described in Section 8. Using the wrong cleaner can damage certain types of wheels. Wipe the wheels to protect them and retard rust or corrosion.



181

Detail Your Car!

Get it really clean!

DETAILING CARS & TRUCKS

by do-it-right publishing

This is "a mini-course for the do-it-yourselfer who wants to learn how to do it right."

This is a picture book that will show you how to professionally clean, and I mean really clean, your car. Chapters include the detailing process, detailing products, automotive hand wash, the two-bucket wash, paint detailing, trim detailing, convertible top detailing, tire and wheel detailing, interior detailing, underhood detailing, truck chassis detailing, the 15 minute quick wash, and the one-step cleaner-wax job.

One testimonial on the backcover says "I saved at least \$150 detailing my car at home, and I did it in just one Saturday afternoon." I'll believe that. I want you to learn today, so you can clean my car next Saturday. (I hate washing cars. Loading the dishwasher is about all I can handle and grudgingly at that...)

You spent a fortune on that pile of tin. Make it look like something. Get this book, and find out how to make it really shine!

5 1/2 x 8 1/2 softcover 180 pages wall-to-wall photos

No. 6079

\$8.95



Dry the engine and the engine compartment. Use old towels to wipe off the bulk of the water.

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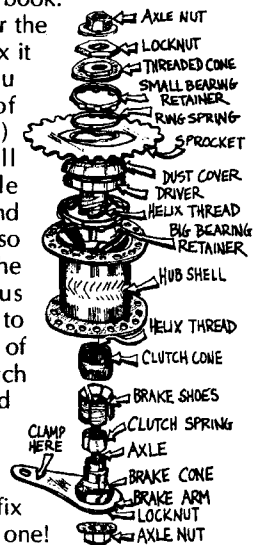
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Lindsay Was Rewinding the Resonation Resolver Coil When **The Neighbor Lady Paid a Visit**

For the past year Lindsay has been testing his death ray machine on alley cats and stray dogs. So far he hasn't killed any of them. He's only managed to neuter them. Stray animal populations have dropped dramatically.

Lindsay was rewinding one of the death ray coils last week when Mrs. Hoobah blasted into his shop stompin' mad.

Lindsay hadn't realized that when he last discharged the power capacitor into the freebistat that the death ray had been carelessly aimed out the window and directly at Mr. Hoobah's rear end as he washed the car! Oh! Big trouble!

Mrs. Hoobah wasn't upset that her husband's voice jumped up three octaves. She wasn't upset that he stopped shaving. She wasn't upset that he stopped watching *Monday Night Football* and started watching *Sewing With Nancy*. It didn't even bother her that he stopped playing poker with the guys and started crashing ladies' card



from the cover of
Hugo Gernsback's
Short Wave Craft Magazine
Sept 1934

parties. But when he started wearing her clothes, that was just too much!

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